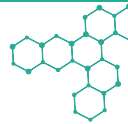




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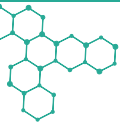


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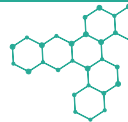
Management of Persistent Organic Pollutants (POPs) and Other Priority Chemicals in the Textile Industry





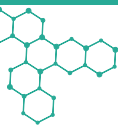
This document was prepared in the scope of **BURSA TEXTILE SECTOR POPs EMISSIONS INFORMATION, BAT-BEP EVALUATION AND IMPLEMENTATION PLANNING PROJECT** conducted by Toplumsal Atılım Kalkınma ve İnovatif Girişim Modelleri Geliştirme Derneği (**TAKIM-G**) and Türkiye Küçük ve Orta Ölçekli İşletmeler Serbest Meslek Mensupları ve Yöneticiler Vakfı (**TOSYÖV**) with financial assistance of **GEF-SGP Turkey Small Grants Program with Global Environment Fund and United Nations Development Program**.

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1. Introduction

The chemical industry is a critical sector that directly affects many manufacturing sectors, from agriculture to construction, from textiles to high-tech industries such as automotive and electronics, and provides raw materials and intermediate products to these sectors. The production and use of chemicals in our country and in the world is increasing day by day. The sales of chemicals on a global scale doubled between 2004 and 2014, increasing from 1.5 billion Euros to 3 billion Euros. This increase is expected to increase by 4% each year until 2020. As can be seen in Figure 1, the increase in the production of chemicals is expected to be much higher than the population growth rates and the amount of chemicals produced per person is expected to increase gradually in the coming years.

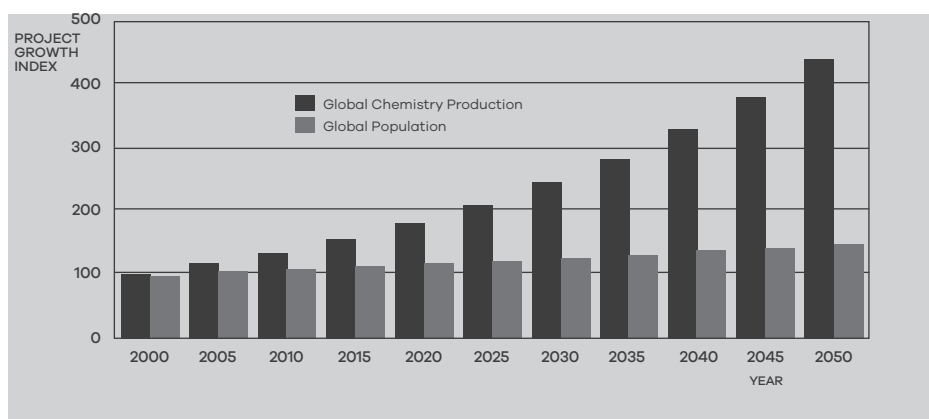


Figure 1. Comparison of increase in chemical production with population growth

This increase in chemical production actually means that more chemicals are used in products and as a result, people, animals and the environment are exposed to these chemicals. Exposure to a chemical, for example carcinogenic or mutagen, harms people as a result of its properties. It is not an easy process to identify and manage the properties of chemicals. For example, with the REACH Regulation implemented in the EU market since 2007, approximately 100,000 chemicals have been registered, but as a result of the substance evaluations, 72 chemical substance/substance groups that pose a risk to human health and the environment and whose risks cannot be controlled were banned or restricted.

In addition, according to the EU REACH Regulation, there are approximately 35,000 chemicals produced or imported in the EU market annually of 1 ton or more, and 60% of these substances are harmful to human health and/or the environment (Figure 2). These chemicals are not only chemical products (paint, adhesive, detergent, solvent, medicine, etc.) but also materials such as metal, plastic, paper, glass. Millions of products used today either contain chemicals, are produced using chemicals or treated with chemicals (e.g. coating, protection).

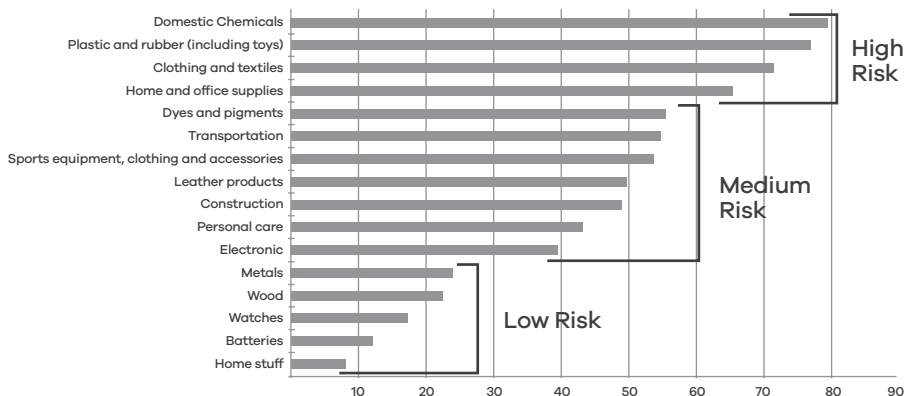
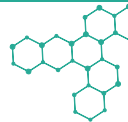


Figure 2. The number of potential priority chemicals by product category and usage areas of priority chemicals

Hazardous chemicals are used in many consumer products, from clothing / textiles, furniture, construction, electronics and vehicles to foodstuffs, medical devices and toys. It is very difficult to determine which product contains which chemical without labeling or laboratory analysis. This situation creates a difficult situation in terms of determining which chemicals we are exposed and how often and what kind of risks we face.

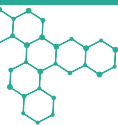
Scientific studies have shown that chemicals we are exposed to from products and items used in daily life have long-term health effects such as infertility, low birth weight and neurodevelopmental disorders, even at very low concentrations. The most common ways of exposure to chemicals in products are through indoor air or household dust. At the same time, some chemicals, especially those with persistent organic pollutants (POPs) properties, remain in nature for a long time, can be transported long-range and cause problems that will last for years.

As can be seen in Figure 2, the textile industry is among the top three in sectors where the most priority chemicals are used. Chemicals used in the industry are significant pollutants for human health and the environment, and should be managed effectively in accordance with international standards.

Hazardous chemicals are one of the most serious environmental problems with far-reaching and unpredictable consequences for human health, animals and nature. The production and use of chemicals has increased significantly in recent years. No one knows how many chemicals are being produced globally today. A large amount of chemicals are used in textile manufacturing and some of them are dangerous and pose a threat not only to health and the environment but also to your business. Many companies have been the target of lawsuits, product recalls, and damaged brand reputations, as the effects of chemicals were underestimated.

Hazardous chemicals can cause a wide variety of diseases and health problems, including various types of cancer, infertility, obesity, allergies, and diabetes. This situation affects not only those working in the manufacturing process but also the customers who buy these products.

There are many institutions and organizations in Turkey authorized for chemicals man-



agement. The leading ones are the Ministry of Environment and Urbanization, General Directorate of Environmental Management, Chemicals Management Department. In addition, the Ministry of Health specializes in biocidal products and the Ministry of Agriculture and Forestry is authorized for products related to plant protection.

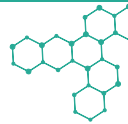
Legislation on Chemicals Management in Turkey is largely in line with the EU Chemicals Legislation. In addition, Turkey is a party to the Stockholm Convention on POPs and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. The national legislation in the management of chemicals concerning the textile industry is given below.

Regulation on Persistent Organic Pollutants: The executor of the Regulation N°30595 published on 14 November 2018 is the Ministry of Environment and Urbanization. The purpose of this Regulation is to protect human health and the environment from the negative effects of persistent organic pollutants. The regulation is the implementing legislation of the Stockholm Convention on POPs. Chemicals banned or restricted within the scope of POPs Regulation are listed in Annex-1.

Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals: The executor of the Regulation N°30105 published on 23.06.2017 is the Ministry of Environment and Urbanization. The purpose of this Regulation is to regulate the administrative and technical procedures and principles regarding the registration, evaluation, authorization and restriction of chemicals in order to ensure a high level of protection of human health and the environment, to encourage alternative methods to evaluate the hazards of substances and to increase competition and innovation. Chemicals that are banned or restricted within the scope of this Regulation are listed in Annex-2.

Biocidal Products Regulation: The executor of this Regulation published in the Official Gazette N°27449 dated 2009, is the Ministry of Health. The purpose of this Regulation is to determine the principles to regulate the production and import of biocidal products and their licensing and registration, placing on the market, packaging, labeling, classification, inspection and procedures and other issues related to biocidal products before they are placed on the market.

Turkish Food Codex Regulation on Maximum Residue Limits of Pesticides: The executor of this Regulation published in the Official Gazette N°29899 dated 2016, is the Ministry of Food and Agriculture (General Directorate of Food and Control). The purpose of this Regulation is to determine the application procedures and principles regarding the maximum limits of pesticide residues in foods of vegetable and animal origin in order to ensure a high level of consumer protection.



2. Textile Industry and Manufacturing Processes in Turkey

2.1. Textile Sector in Turkey

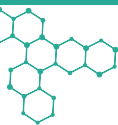
Textile sector is one of the most important sectors of our country and textile manufacturing activities can be found in almost every region of Turkey. While yarn manufacturing is intense in Kahramanmaraş, İstanbul, Adıyaman, Gaziantep and Bursa; towels, bathrobes, home textiles manufacturing is thriving in province of Denizli. Uşak specializes in yarn, blankets, recycling and Çorlu and Çerkezköy specialize in finishing processes. Province of Adana is famous for weaving and finishing of cotton and Gaziantep is known for polypropylene, nonwoven textiles and machine carpet weaving. Knitting garment and ready-made garment manufacturing is mainly conducted in İstanbul.

Provinces	Number of Workplaces	Share in the country	Number of insured employees	Share in the country
İSTANBUL	5.454	0,34	67.014	0,17
BURSA	2.957	0,18	65.565	0,16
DENİZLİ	1.212	0,07	29.995	0,07
GAZİANTEP	938	0,05	44.249	0,11
İZMİR	917	0,05	15.124	0,03
UŞAK	656	0,04	10.465	0,02
TEKİRDAĞ	447	0,02	45.478	0,11
ANKARA	289	0,018	3.393	0,008
KAHRAMANMARAŞ	265	0,017	24.436	0,06
ADANA	242	0,015	9.520	0,02
TOKAT	61	0,004	1856	0,004
SAMSUN	58	0,003	745	0,002
AMASYA	22	0,001	242	0,0006
ÇORUM	7	0,0004	54	0,0001
OTHER	2.522	0,15	74.414	0,19
TOTAL	16.047		392.550	

Table 1. Provinces with major textile manufacturing activities

Due to the advantages of the customs union agreement, proximity to large markets, skilled human resources and strong supply chain, Turkey is among the most competitive countries in the world in textile and apparel industry. The textile sector in Turkey is an important industry for the country's economy with its production size, employment, added value and export potential.

Turkey also has an important place in the area of textile production and export in Europe and the world. In the textile finishing sub-sector, Turkey has the largest production capacity in Europe and the third largest production capacity in the world after China and India. It is the largest producer of home textiles in Europe and the fourth largest producer of home textiles in the world.



In 2014, Turkey achieved 4% of the world textile and apparel exports and took the 6th place. China took the first place in exports in the sector with a share of about 41%, followed by India (5.4%), Italy (5.3%) and Germany (5%), respectively.

The textile and apparel sector has taken an important position in the economy by accounting for 18.7% of Turkey's exports with 29.5 billion dollars in 2014. Looking at past periods, this rate decreased from 40.7% in 1995 to 26% in 2005 and 19.3% in 2010. In the same process, the share of the sector in world trade has decreased significantly. The sector share declined from 7% in 1995 to 4.6% in 2014.

After China and India, Turkey is the third country in the world with the largest foreign trade surplus in textile and apparel products, i.e. the amount of exports is greater than country's imports.

2.2. Textile Manufacturing Processes

The production phase of the textile industry has a long and complex chain. The first step of the production process begins with the production or harvest of the raw fiber. The basis of the processes in this sector is the "finishing processes" (pre-finishing, dyeing, printing, finishing processes, coatings, washing and drying). Finishing operations can be applied at any stage of the production process, depending on the needs of the end user. Flow chart of production processes is given in Figure 3.

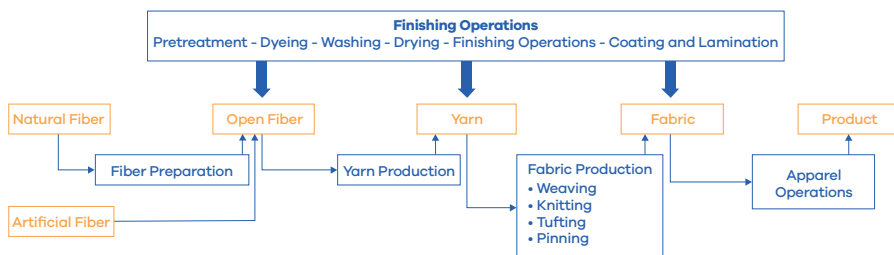


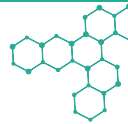
Figure 3. Textile manufacturing processes (adopted from Ref 5.)

Fiber production

All textiles consist of fibers arranged in different ways to create the desired strength, durability, appearance and texture. Fibers can have numerous origins, but they can be divided into four main categories. Natural fibers (except silk) have a relatively short fiber length measured in centimeters. Silk and artificial and synthetic fibers, on the other hand, have very long fiber lengths (filaments) ranging from hundreds of meters to kilometers.

Plant fibers consist of cellulosic material, normally derived from cotton, linen, hemp, or bamboo, but any plant with more or less extractable cellulose can be used. Cotton is the most widely used plant fiber, cotton cultivation is very resource intensive and is grown with high amounts of water, **pesticide, insecticide and chemical fertilizer** input, so it leaves a large toxic footprint if not grown organically or under certain sustainable conditions.

Animal fibers are made up of proteins. Wool and silk are the most commonly used fibers from this group, but wool can come from many different animals. **Pesticides and insecticides** can be used to prevent diseases to enable animals to grow faster and achieve higher yields. Dipping is a common practice to use both organic phosphates and a synthetic



pyrethroid to control parasites in sheep farming. After the wool fibers are cut, they are treated **with chemicals** during the scrubbing and washing process.

Artificial and synthetic fibers, such as viscose (rayon) or lyocel, are normally based on cellulosic raw material from wood pulp. The new fiber undergoes an intensive **chemical treatment** before spinning. The entire process of producing fiber from wood pulp is a very resource-intensive process that involves the use of many **hazardous substances (acids, bases, process chemicals)**.

Synthetic fibers are made from monomers derived from fossil oil raw materials, which are then polymerized into different fibers. Given all possible monomers that can be made from a synthetic raw material, the possible combinations are infinite. However, the most common synthetic fiber is polyester, followed by polyamide, polyacrylic and aramid. Depending on the monomer used to produce fibers, an infinite number of **chemicals (pigments, catalysts, stabilizers)** can be used in the process. For some of synthetic fibers such as polyester, the **dyeing** process can be performed when the fiber is manufactured.

Yarn production

When the fiber is harvested or produced, the next step is to turn the fibers into a yarn. It is easy to believe that this step, which is a mechanical step, does not use chemicals. However, in order to increase the strength of the fiber, increase the adhesion of the fiber, and reduce friction during the spinning process, **spinning oils** are added.

Fabric production

The essence of textile production is fabric production. Fabrics can be created in many different ways, the most common being the production of woven, knitted or nonwoven fabrics. During these processes, it is important to strengthen the yarn (**adhesives and binders**) and reduce friction to prevent the yarn from breaking. For this reason, **sizing chemicals and lubricants** are added.

Pre-finishing Process

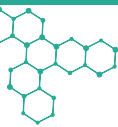
Pre-finishing operations can be done with fiber, yarn or fabric. It allows for later processing of the material that needs to be prepared to accept dyes and functional chemicals. This is done through a multi-step process. What stages the fabric goes through depends exactly on the type or mixture of the fiber and then how it is processed. In some cases, pre-processed fabrics are produced for subsequent garment dyeing.

The most common pre-finishing stages involving chemicals for a fabric are:

- *Washing* ensures the overall cleanliness of the fabric after the previous steps and processes. (**Detergent and solvent**)
- *Sizing removal* removes sizing chemicals from warp yarns in woven fabric. (**Enzyme**)
- *Scouring* clears oily fibers and greases from natural fibers, cotton seed and bark. (**Detergent, base and solvent**)
- *Bleaching* whitens the fibers and facilitates the dyeing process. It also makes the fibers more absorbent. (**Bleaches**)
- *Mercerization* makes cellulosic fibers inflate, make it stronger and brighter, and increase the capacity to accept dye. In this way, the required amount of dye can be reduced. (**Bases**)
- *Carbonization* removes vegetable residue such as seed from wool. (**Acids**)

Dyeing and printing

Both **hazardous chemicals** and **dyestuffs** are used during dyeing and printing. Dyes used for dyeing can also be used for printing, but must then go through the same stabilization and washing stages after dyeing. The most common way to print a fabric at full width is to



use pigment prints, in which pigments adhere to a surface using **polymeric resin or binder**. No washing process is required. Plastisol printing for garment printing is very common. PVC-based paste often contains **dangerous chemicals such as phthalates**, but there are also alternatives based on acrylate or polyurethane.

Dyeing can take place in several steps when processing textiles. Synthetic or artificial fibers can be made as loose natural or regenerated fibers and when spun in yarn or fabric form.

For fiber mixtures, two types of dyed fiber can be spun together: viscose and wool.

Full-width printing is carried out on pre-processed fabrics, but it is also possible to put a print on a garment or manufactured textile product by screen printing or transfer printing. Digital printing is another method.

There are also other printing techniques (**pigments, dyes, binders, polymeric resins (acrylates, PVC, PUR) and plasticizers**), such as printing and resistant printing using dyes (**dyes and pigments**) and chemicals. This includes washing (detergents) to get rid of excess dye and residue.

Finishing Process

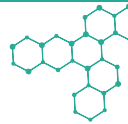
This step of the process is all about adding special technical features or aesthetic appeal to the finished fabric. Depending on the desired properties, such as flame retardancy, improved water resistance, antibacterial treatment, protective coatings or special fashion applications, various chemicals are used. Some examples are given below.

- Plasticizers (**polyethylene, quads, ammonium compounds, silicones, polyurethanes**), supplements (**starch, resins, polyvinyl acetate, polyvinyl alcohol**)
- Wrinkle resistance, like anti-wrinkle for easy maintenance) (**different resins based on formaldehyde**)
- Antistatic treatment (**cationic plasticizers, polyglycols**)
- Anti-pilling (resins)
- Antibacterial / anti-odor treatment (**biocides such as silver, triclosan**)
- Water repellency (**wax, silicone, fluorocarbon based water repellents**)
- Oil / stain repellency (**fluorocarbon based oil / stain repellents**)
- Flame retardant (**flame retardants (halogenated, phosphorus based)**)
- Protective coatings (**acrylates, polyurethanes, silica, PVC with plasticizer**)
- Laminated films and membranes (**layers of material: different types of polymers (polyurethane, polytetrafluorethylene modified polyester), adhesives: different types of polymers such as polyurethane and thermoplastic polymers**)
- Clothing applications for fashion (**potassium permanganate, sodium hypochlorite, calcium hypochlorite, sodium hydro sulphite, potassium dichromate, formaldehyde resins, cationic plasticizers, cationic silicone plasticizers**)

Manufacturing, shipping, sales and retail

When the fabric has the desired color and characteristics, it transforms into finished products, such as sweaters, jeans, shoes or other special products such as carpets, furniture or car seats. This step includes, for example, cutting, sewing, and adding buttons and zippers. In some cases, dyeing and printing of finished garments only with pre-treated fabric occurs at this stage.

Transportation preparation, which includes protection from mold during shipping and storage, is mostly carried out using biocides. (**Dimethyl fumarate, ethylene oxide, methylbromide, 1,2 dichloroethane, fosin, dichloromethane, sulfuryl fluoride**)



3. POPs and Priority Chemicals Used in the Textile Sector

There are dangerous chemicals that are used more frequently in the textile production process than in other processes. These can be grouped as solvents, surfactants, water and stain repellents, biocides and pesticides, dyes/pigments, flame retardants, plasticizers, and phthalates. The most commonly used hazardous chemicals, where and why they are used and what problems they can cause is explained below.

Solvents

A solvent is a liquid usually used to dissolve substances or materials such as pigments in a solution. Solvents are used in several stages throughout the manufacturing process. Water can often be used as a solvent, but not for everything. Different types of organic solvents are often required. Many are dangerous when inhaled or in contact with skin. Solvents are often used in large quantities, both in the production process and in the cleaning of machines. Many solvents are also flammable, and some are explosive. Careful solvent selection can be an effective way to reduce hazards, especially in the workplace.

Solvents that are dangerous to human health include trichloroethylene, benzene and methanol. In addition, solvents used in textile manufacturing and their hazardous properties are given in Annex-3.

Surfactants

Surface active chemicals, or surfactants can function as detergents, wetting agents, emulsifiers, foaming agents, dispensers, plasticizers and antistatic agents, and are used in many stages of the textile process. Commonly used surfactants are alkyl phenol ethoxylates, which are problematic because they are endocrine disruptors, meaning they can interfere with the hormone systems of mammals. Commonly used plasticizers that are purposely applied to fabric are DHTDMAC, DSDMAC and DTDMAC.

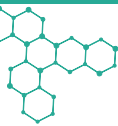
In addition, surfactants used in textile manufacturing and their hazardous properties are given in Annex-4.

Water and stain repellents

Water repellence is often a desirable feature, especially for fabrics used outdoors. A common way to achieve this is to impregnate the fabric with fluorinated or perfluorinated compounds. Some of these substances, including PFOA and PFOS (sometimes called C8 technology), have been known for many years to have dangerous properties. This has led to increased use of other perfluorinated substances. However, many of these (including those sometimes known as C6 or C4) have been shown to have problematic properties. Even if perfluorinated substances give the fabric many times the desired properties, it is important to reflect on whether these properties are really necessary for a specific purpose. There are alternatives that do not rely on fluorochemicals and can be used to create a water-repellent surface, especially if the focus is water repellence. One option is to use dense cotton fabric that swells in contact with water, or a dense synthetic fabric woven from microfiber yarns, both impregnated with wax-based alternatives to achieve a repellent effect. In addition, it is also possible to obtain a repellent property in synthetic fabric by various methods without using fluorinated/perfluorinated compounds.

Admittedly, it is equally important that “refill” sprays sold to consumers are also free of these compounds, and that the manufacturer and retailer actively promote alternative products that do not contain fluorocarbon.

In addition, water and stain repellents used in textile manufacturing and their hazardous properties are given in Annex-5.



Biocides and pesticides

Biocides and pesticides are used to prevent development of living organisms on products. Biocides can be used to prevent everything from bacterial growth to grazing of large animals, and are designed to be dangerous to target organisms. The development of biocides that will not harm other organisms, including humans, is a major challenge. Pesticides are a type of biocides used to protect plants from harm by insects, mold, or weeds. Thus pesticide residues can be found in fibers such as cotton or linen. Organic crops are grown using less dangerous pest control methods.

Biocides can also be used in manufacturing, transportation, or to give the final product its antibacterial properties. Mold inhibitors can be used to provide protection during the transportation or storage of wet products. Biocides can often be substituted by changing storage and transport routines, and the usefulness of biocides in textiles (e.g. to prevent odors) is heavily debated, especially since antibacterial therapy is normally washed away quickly during use and can become resistant.

Another consideration to consider is that mold protection can affect the working environment. It is very easy to pollute the areas where warehouse and store staff remove clothes and textile materials from their packaging, as hazardous substances are released when the packaging of plastics and other packaging is opened.

Dangerous pesticides include atrazine, mirex and DDT. Problematic biocides that can be used in final textile products are triclosan and nano-silver. In addition, biocides and pesticides used in textile manufacturing and their hazardous properties are given in Annex-6.

Flame retardants

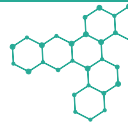
Flame retardants are used to make a product less flammable. Depending on national regulations, it may be necessary to use flame retardant in certain products. Examples of such products include protective clothing, curtains and fabrics used in furniture. Some flame retardants still in use, especially halogenated versions, are known to have hazardous properties and some are subject to international and/or national regulations. For example, the Stockholm Convention on Persistent Organic Pollutants bans or restricts certain brominated flame retardants. The first choice when looking for alternatives is to investigate whether the use of flame retardant is really necessary for the purpose. If an alternative is required, it is a more logical choice to look for a less flammable material or a combination of materials that meets the requirements of your product. Nowadays, it is possible to find more and more flame retardants with improved health and environmental profiles.

In addition, flame retardants used in textile manufacturing and their hazardous properties are given in Annex-7.

Plasticizers and phthalates

Plasticizers are used to soften plastics. For textile applications such as screen printing and fabric coating, PVC must be softened first. A common plasticizer group is phthalates, which are used in large quantities in printing, usually about 30-60% of the total composition. Some phthalates have dangerous properties, such as being toxic for reproductive processes. Because phthalates are not chemically dependent on PVC, they can leak out, users are likely to be exposed to and ingest phthalates from textiles, for example through fiber powder. Children may be exposed when chewing on printed fabric. More and more brands are trying to use less phthalates in their products and are opting for alternative plasticizers as well as existing PVC alternatives.

In addition, plasticizers and phthalates used in textile manufacturing and their hazardous properties are given in Annex-8.



Dyes/pigments

Dyes and pigments are used to give the fibers/fabric desired color or whiteness. Some commonly used coloring methods use excessive amounts of dye and are therefore chemicals are discharged into large amounts of waste water. Some dyes, including Azo dyes, can be very toxic and are usually permanent, which is a desirable feature on the fabric but not in the environment. Dyes can also contain heavy metals such as lead or cadmium, which are very dangerous. Optical whiteners in cotton are usually loosely attached to the fibers and are therefore easily washed away.

From an environmental point of view, it is important to choose a quality dye that strongly binds or adheres to the fabric under optimal production conditions. This is necessary in order to reproduce the process and get the same result over and over again. This also applies to “washing-out” feature, which is a very desirable trait for the consumer.

In addition, dyes/pigments used in textile manufacturing and their hazardous properties are given in Annex-9.

3.1. Prioritization of Chemicals

Chemicals or chemical groups that are dangerous to human health and the environment are controlled by certain binding or semi-binding mechanisms. We can list these mechanisms as follows:

Turkey Lists:

- List of banned and restricted substances by KKDİK (Annex-17) (www.kimyasallar.csb.gov.tr)
- Lists of banned and restricted substances under annexes of POPs Regulation (www.kalicikirleticiler.com)

International listings:

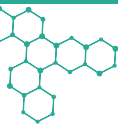
- Substances listed as dangerous by UNEP in any of the Stockholm, Rotterdam and Minamata Conventions. (www.brsmeas.org)
- Substances or chemical groups listed as priority chemicals by SAICM, a non-binding global mechanism. (www.saicm.org)

EU list:

- EU Candidate List of substances of very high concern for Authorisation (<https://echa.europa.eu/candidate-list-table/>)
- Substances restricted for use in the EU under REACH (<https://echa.europa.eu/substances-restricted-under-reach>)
- Priority Substances and Certain Other Pollutants according to Annex II of Directive 2008/105/EC (https://ec.europa.eu/environment/water/water-framework/priority_substances.htm)

US List:

- U.S. Department of Toxic Substances Control, Candidate Chemicals List (<https://dtsc.ca.gov/scp/candidate-chemicals-list/>)
- California Office of Environmental Health Hazard Assessment, The Proposition 65 List of substances known to be carcinogenic and toxic to reproduction (<https://oehha.ca.gov/proposition-65/proposition-65-list>)
- U.S. EPA, Toxic Release Inventory (<https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals>)



NGO List:

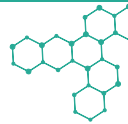
- SIN List (<https://sinsearch.chemsec.org/search/search?query=>)
- Trade Union List (<https://www.etuc.org/en/trade-union-priority-list>)

Textile Industry Lists:

- AAFA, American Apparel and Footwear Association (https://www.aafaglobal.org/AAFA/Solutions_Pages/Restricted_Substance_List.aspx)
- AFIRM, Apparel & Footwear International RSL Management Group (https://www.afirm-group.com/wp-content/uploads/2020/03/2020_AFIRM_RSL_2020_0130_EN.pdf)
- Bluesign, third-party verification and criteria body (<https://www.bluesign.com/de/business/downloads>)
- EU Ecolabel, Pan-European Ecolabel, "EU-Flower" (https://ec.europa.eu/environment/archives/ecolabel/product/pg_clothing_textiles_en.htm)
- Good Environmental Choice, Ecolabel from Northern Europe (<https://www.naturskyddsforeningen.se/bra-miljoval/det-har-ar-bra-miljoval>)
- GOTS, Global Organic Textile Standard, processing standard for organic fibres (<https://www.global-standard.org/the-standard.html>)
- H&M, Hennes & Mauritz, clothing and apparel retailer RSL and mRSL (<https://hmggroup.com/sustainability/circular-and-climate-positive/chemicals.html>)
- Nordic Ecolabel, "The Nordic Swan" from the Nordic countries (<http://www.nordic-ecolabel.org/product-groups/group/?productGroupCode=039>)
- Oeko-Tex Standard 100, third-party verification and criteria body (<https://www.oeko-tex.com/en/apply-here/standard-100-by-oeko-tex>)
- Puma, apparel company (<https://about.puma.com/en/sustainability/environment/chemicals>)
- VF Group, clothing and apparel brand owner (<https://www.vfc.com/sustainability-and-responsibility/chemistry>)
- ZDHC, Zero Discharge of Hazardous Chemicals, sector group of textile companies (<https://www.roadmaptozero.com/input>)

Priority chemicals in the textile sector in the annex to this document are compiled from the lists listed above. For a textile manufacturer, priority binding instrument is local legislation in the country where it is located, then international binding obligations, then the requirements of the market in which it sends its products, and the goals of the international brands in which it sells the product. Priority chemicals lists compiled from all these given lists are given in the annexes to this report.

The next stage is the detection of dangerous chemicals used by companies in textile manufacturing, the determination of their safe alternatives and the gradual transition to these safe alternatives. The reason for the gradual transition is that some chemicals can only be abandoned by changing raw materials, while others require a process change.



4. Phased Reduction of POPs in Manufacturing

When considering a phased reduction, you need to consider a few things. These can be explained as internal and external requirements. External requirements could be your company's specific in-house priorities that refer to your specific products, as well as laws banning you from using a specific chemical, etc.

External requirements can include the following:

Legal

For your specific purpose, you need to deal with chemicals that have been previously banned or restricted immediately. The items listed for priority attention (for example, on the EU candidate list) give you more time, but you need to start working with alternatives as soon as possible.

Supply chain

Your customer or others in the supply chain may tell you to avoid a particular chemical or that a particular chemical may not be used in the future. In these cases, you must agree with the other party on the timeline to phase it out.

"Hot" chemicals and consumer preferences

Some chemicals get more attention in the media, and consumers become aware and want alternative products free of them. It is wise to prepare by monitoring which chemicals are discussed and highlighted by the campaigns of NGOs, otherwise it could damage your brand.

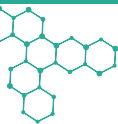
With internal requirements, for chemicals without external pressure you need to set your own priorities according to your own company policy. The following considerations may be appropriate:

- Chemicals used in products for children.
- Other types of products that are especially "close" to the consumer: food and nutrition, bed sheets, underwear, etc.
- Product-related hazard type. For example, sensitizers have a very high concern for skin contact, while substances with environmental hazards are particularly problematic when they have low washing fastness on textiles.
- Chemicals widely used in high volumes.
- "Flagship products" of particular importance to the company and company reputation.

4.1. Reduction Phases

Substituting dangerous chemicals with safer alternatives is a very effective way to improve the toxic footprint of your products. It will not only make the final product safer, but will also create better working conditions.

In short, the substitution process begins with the identification of a chemical that needs to be removed and the understanding of the function it has in the production process or in the properties it gives to the final product. In the best case scenario, it may not be necessary at all, or it can be easily replaced with just a small modification of the process. It is also important to consider the aesthetic appearance and characteristics of the product. Is it possible to accept a slightly different nuance or a good enough property by using a less dangerous dye or chemical instead? Building good relationships with your supplier will make it easier for you to discuss these issues and get a good result. Usually, you need to contact responsible people who have more information and more product contact. If you



are considering replacing a dangerous chemical, you should be careful not to introduce other dangerous chemicals.

Step by step substitution

- Define the function, use and need of the item you want to replace
- Define criteria for alternative
- Look for available alternative solutions
- Evaluate and compare alternatives
- Pilot scale testing
- Apply substitution

Define the function, use and need of the item you want to replace

It is very useful to think about substitution using such different levels as function, usage and need. As an example, let's take a look at the use of phthalates in PVC printing on textiles:

The function of phthalate is to make PVC plastic soft. If you just think about the function, you can find an alternative non-phthalate plasticizer. You can also look at the use of PVC for textile printing. With this in mind, you might consider switching to another type of printing pad that doesn't require plasticizers: polyurethane or silicone, for example. The ultimate need is to produce attractive textiles. Perhaps this can be achieved by other means, such as embroidery.

Depending on the question you ask, you may encounter several possible alternatives. Our proposal is to take a broad perspective and look at all the possibilities so that you can have as many solutions as possible at this stage.

Define criteria for alternative

Before we move on to evaluating and comparing alternatives, it's important to think about what you want from an alternative. What do you want to achieve in terms of hazard profile and functionality: is there a cost limit? How urgent is the substitution? Are there already legal requirements, or do you have time to wait for an alternative that is currently under development?

Look for available alternative solutions

You can find alternative solutions through the following channels:

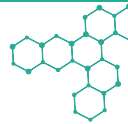
- In-house information
- Trade organizations
- Stakeholder networks (e.g. ZDHC group)
- Reports from authorities (e.g. ECHA, US EPA, KEMI and others)
- Web-based resources (e.g. SUBSPORT, OECD and others)
- Your suppliers
- Chemical manufacturers and formulators

Available online resources:

Marketplace - <https://marketplace.chemsec.org/>

Marketplace provides a unique marketing opportunity for safer alternative manufacturers and is a one-address store for downstream user companies looking to replace hazardous chemicals in their products.

Search the Marketplace database and filter for chemical functions, related industry, or a



specific hazardous chemical you are looking for safer alternatives.

SUBSPORT - <http://www.subsport.eu/case-stories>

SUBSPORT is a multilingual free-of-charge web portal that aims to be the first entry point for anyone interested in substituting hazardous chemicals. It constitutes a state-of-the-art resource on safer alternatives and is a source of information on alternative substances and technologies, as well as tools and guidance for substance evaluation and substitution management.

OECD replacement and alternatives toolbox - <http://www.oecdsaatoolbox.org/home/index>
It lists available resources for substituting and evaluating alternatives, some of which include sample or case stories.

Evaluate and compare alternatives

Evaluating alternatives is about making sure you choose the best of the available alternatives given the criteria you set. The following considerations can be taken into account when evaluating alternatives:

- Hazard assessment
- Functionality of alternatives
- Availability of alternatives
- Costs
- Changes in processes
- Life cycle considerations: energy, waste / discharge, carbon dioxide emissions, etc.

If the goal of substitution is to reduce dangerous chemicals, the point to start is the hazard assessment. Once you are sure you have one or more alternatives that are less dangerous than the substance you are replacing, you can look at all the other aspects.

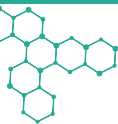
Evaluating alternatives is widely discussed and new and better methods are being developed. Some regulations require that alternatives be evaluated before dangerous chemicals are routinely used, e.g. European chemicals regulation, REACH.

There are a number of methods available; some are simple and require information only from Material Safety Data Sheets, while others require information from scientific publications and even retesting chemicals.

The OECD has worked with stakeholders to create a “toolbox” (also mentioned above) designed to help you choose an alternative assessment method that fits your qualifications and needs. This toolbox can be accessed at the following link: <http://www.oecdsaatoolbox.org/Home/Tools>

The most comprehensive method for evaluating alternatives is called “GreenScreen for Safer Chemicals.” GreenScreen was developed by and is a project of Clean Production Action and provides a rigorous comparative hazard assessment based on 18 different hazardous endpoints. Chemicals are compared on a scale of 1 to 4, which makes the comparison visible and easy. GreenScreen is also part of some U.S. regulatory initiatives and standards for the building and electronics sector. Greenscreen can be reached at the following link: <http://www.greenscreenchemicals.org/>

A common problem when evaluating alternatives is a lack of data, especially for new chemicals. For chemicals with little or no data, hazardous properties can be estimated depending on the chemical structure. The most popular methodology for this is called q-SAR, but this chemical evaluation process requires expertise and training. For use with



SIN List (one of the lists in our hazardous chemicals database), ChemSec has developed a tool called SINlikeity. This gives you the opportunity to write down the CAS number of a chemical and find out if that chemical is structurally similar to any substance on the SIN list. If so, it is unlikely that the chemical has similar problematic properties. <http://sinlist.chemsec.org/>

Pilot scale testing

Even after a thorough investigation of the feasibility of an alternative, there may be things you cannot foresee. Therefore, it is always wise to conduct a practical pilot test before applying full-scale substitution.

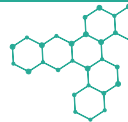
Apply substitution

If you have started using the new substitution in the production process after the pilot scale testing is successful, you can use this opportunity to deliver news of substitution to your supply chain, and perhaps even to consumers. Remember, however, that you may not have found the final solution yet. Substitution is an ongoing process, as new scientific findings and regulations may emerge. However, once you have made an appropriate alternative assessment, you are prepared for it in the best possible way.

4.2. Known Common Alternatives

The successful substitution of chemicals depends on the processing, the materials used, and many other individual conditions. What works for your business may not work for someone else's. However, substituting certain chemicals with certain substances has a good history, and this could be a good start for you to initiate your substitution procedures. Known common alternatives are listed below.

Chemical	Possible alternative
Scouring	
Acid	Hydrogen peroxide and enzymes
Alkylphenol ethoxylate, (TSP), NaOH	Fatty alcohol ethoxylates, sodium carbonate
Alkyl Benzene sulfonate	Fatty alcohol sulfates, polyglyco ether
NTA, EDTA	Zeolites (sodium aluminum sulfate)
Bleaching	
Reducing sulfur bleaches	Peroxide bleaches
Chlorine compounds	Peroxide bleaches
Dyes	
Benzidine-based dyes and other Amine-releasing dyes	Mineral / pigment dyes
Dichromate and sulfur dyes used for oxidation of boat dyes	Peroxide, air oxygen, metal-free agents
Acetic acid in painting bath	Formic acid



Dispersants for dyes and chemicals	Water-based system
Copper sulfate used to process direct dyes	Polymeric compounds
Powder coating in automatic injection	Liquid dyes
Stabilized sodium hydrosulfite	Sodium hydrosulfite
Aldehyde and toxic metallic salts used as auxiliaries	High molecular weight polymeric auxiliaries
Sodium sulfur	Glucose-based reducing agent
Printing	
Kerosene or white ethyl alcohol	Water-based systems
Finishing	
Formaldehyde	Polycarboxylic acids
Alkilfenol	Fatty alcohol ethoxylates
Dimethylol dihydroxyethylene urea	Polycarboxylic acids
MAC complex agents such as DTDMAC, DSDMAC, DHTDMAC	Cellulase enzymes
Flame retardants	
Asbestos, halogenated compounds and heavy metal compounds	Inorganic salts and non-halogen compounds
Protection	
Chlorinated phenols (PCP), metallic salts (As, Zn, Cu or Hg), DDE, DDT, Benzothiazole	UV treatment, mechanical protection

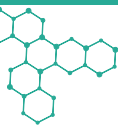
4.3. Substitution Control and Monitoring

After you have identified the products to act and replace with an accurate phased reduction methodology, and then inform your suppliers of what chemicals you want to avoid, you need to make sure they actually meet your requirements. At this point, on-site visits, chemical testing and quality certificates are tools to ensure that your supply chain meets your standards.

Request certificates of conformity

The easiest way to get started is to ask your supplier to provide information about the chemicals used in the production process. Ask for Material Safety Data Sheets (MSDS) or quality certificates for chemicals used. As MSDS is required to provide during shipment of chemicals, such information must always be available to the supplier.

If your supplier is certified by a specific certification body, you must request their license number or certificate number and verify its authenticity with the issuer.



Test to verify

If you have a supplier contract, which specifies how your fabrics are manufactured and which chemicals should be excluded, you may want to conduct tests to verify actual compliance. It is easiest to request third-party testing by an accredited laboratory before shipment.

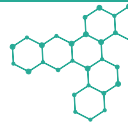
However, it is important to be aware that there are many false test reports and other false documents in circulation, and you should look at the documents with a critical eye when checking these documents. You should always remember that there is a possibility to contact the test lab or certification company directly to verify the authenticity.

So if a particular product or product range is very important to your company, you should consider doing your own testing while your products are delivered. Despite on-site testing, there are many cases where simple errors at the production stage, as well as cases of fraud, have a serious impact on companies, damage their reputation and have huge financial implications.

When choosing ingredients and products for testing, it is always good to start with cheap and easy-to-do tests that identify important ingredients. The best examples of this are to test for the presence of certain chemical elements (atoms), such as heavy metals or chlorine, indicating the use of PVC. Such tests can be easily performed using non-destructive techniques such as XRF. Hold the product you want to test in front of an XRF “gun” for a few minutes and you get an instant response. For more advanced testing on specific substances or exact composition, you may need to contact external laboratories. You can access accredited laboratories at <https://secure.turkak.org.tr/kapsam/search>.

On-site compliance verification

The most advanced way to ensure compliance is to inspect the production site through inspections by your own personnel or third parties. It is not possible to go into details here on how the audit should be conducted, as it depends on the process, the supplier and the purchase agreement.



5. Management of Textile Waste

Sector-specific wastes can be examined in three groups: process-specific wastes, side-process wastes and non-process wastes.

Process-specific wastes

Due to the nature of the textile production process, waste from the sector is collected under various headings in the waste list given in Annex 4 of the Waste Management Regulation. Hazardous wastes are marked with "*" in this list. The list of process-specific wastes is given in Annex-8.

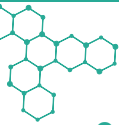
Side process waste

Wastes classified in the category of side-process wastes are wastes that are likely to occur as a result of activities carried out in addition to the main production process. In the sub-sectors covered, no processes have been found that can qualify as side processes.

Non-Process Wastes

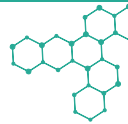
Wastes classified in the category of non-process wastes are wastes that are likely to occur independently of the processes applied in the textile plants. In general, when industrial sectors are examined, it will be seen that non-process wastes have similarities between different sectors. During the preparation of the list on non-process wastes, data obtained from industrial sectors were taken into consideration. The different stages of the waste sector for the textile industry out of the process (preparation, weaving and finishing processes) will vary although generally such classes as 07 "wastes from organic chemical processes", 08 "primers, adhesives, sealants and printing inks manufacture, formulation, supply and use of wastes", 13 "oil waste and liquid fuel waste", 15 "waste packaging; otherwise specified absorbents, wiping rags, filter materials and protective clothing", 16 "list of otherwise unclassified wastes", 18 "human and animal health and/or waste arising from research in these areas (directly health-related non-kitchen and restaurant waste), excluding" 19 "waste management facilities, off-site waste water treatment facilities and human consumption and water for industrial use wastes from the treatment plant" and 20 "municipal wastes including separately collected fractions", are studied.

In particular, in order to reduce the amount of waste caused by industry as much as possible, numerous studies are carried out on waste prevention and reduction. Some of them are proposed in the literature and adopted by industrial organizations, some of them are developed by individual organizations to meet their needs and then distributed as applications. Waste prevention and reduction practices, as well as the Best Available Techniques (BAT), not only have a positive environmental impact by reducing the amount of waste produced, but also provide an economic benefit to businesses by preventing or reducing waste disposal costs. However, waste prevention and reduction practices are possible if they comply with the applicable national legislation.



6. References

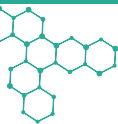
1. MSCI ESG Research, ChemSec's SIN List 2.0, May 2011
2. T.C. Doğu Marmara Kalkınma Ajansı Düzce Yatırım Destek Ofisi (2013). Tekstil Sektörü Raporu- Sektörel Raporlar Serisi-V
3. European Commission, Textile Waste Minimization.
4. Barclay, S. & Buckley, C. (2000) Waste Minimisation Guide for the Textile Industry
5. Bilim, Sanayi ve Teknoloji Bakanlığı (2014). Türkiye Tekstil, Hazırgiyim ve Deri Ürünleri Sektörleri Strateji Belgesi ve Eylem Planı.
6. Commission Communication to the European Parliament, the Council, the European and social Committee and the Committee of the Regions, "Closing the loop – An EU Action plan for the Circular Economy" (COM(2015)614 final) ("Commission Action Plan").
7. European Academies Science Advisory Council ("EASAC"), November 2015, "Circular economy: a commentary from the perspectives of the natural and social sciences", p. 7.
8. U.S. Environmental Protection Agency (2015), "Alev geciktiriciler in Flexible Polyurethane Foam", 744-R-15-002 p. 20 https://www.epa.gov/sites/production/files/2015-08/documents/ffr_final.pdf
9. Swedish Chemicals Agency 2014, Report No. 6/14, Chemicals in textiles – Risks to human health and the environment.
10. <http://www.pops.int/Implementation/Alternatives/Overview/tabid/5834/Default.aspx>
11. <http://www.pops.int/Implementation/Alternatives/AdditionalResources/tabid/5836/Default.aspx>



7. Ekler

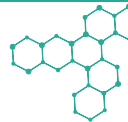
Annex-1 (a): List of Banned Chemicals

Chemical substance	CAS No	EC No
DDT (1,1,1-trichlor-2,2-bis (4-chlorophenyl) ethane))	50-29-3	200-024-3
Chlordane	57-74-9	200-349-0
Hexachlorocyclohexanes, including Lindane	58-89-9 319-84-6 319-85-7 608-73-1	200-401-2 206-270-8 206-271-3 210-168-9
Dieldrin	60-57-1	200-484-5
Endrin	72-20-8	200-775-7
Heptachlor	76-44-8	200-962-3
Endosulfan	115-29-7 959-98-8 33213-65-9	204-079-4
Hexachlorobenzene	118-74-1	200-273-9
Chlordecone	143-50-0	205-601-3
Aldrin	309-00-2	206-215-8
Pentachlorobenzene	608-93-5	210-172-5
Mirex	2385-85-5	219-196-6
Toxafen	8001-35-2	232-283-3
Hexabromobiphenyl	36355-01-8	252-994-2
Dicofol	115-32-2	-

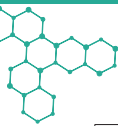


Annex-1 (b): List of Restricted Chemicals

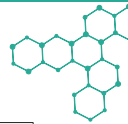
Chemical substance	CAS No	EC No	Specific exemption on intermediate use or other specification
Tetrabromodiphenyl ether C ₁₂ H ₆ Br ₄ O	5436-43-1		<ol style="list-style-type: none"> For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of Tetrabromodiphenyl ether equal to or below 10 mg/kg (0,001 % by weight) when it occurs in substances, preparations, articles or as constituents of the flame-retarded parts of articles. By way of derogation, the production, placing on the market and use of the following shall be allowed: <ol style="list-style-type: none"> without prejudice to subparagraph (b), articles and preparations containing concentrations below 0,1 % of tetrabromodiphenyl ether by weight when produced partially or fully from recycled materials or materials from waste prepared for re-use; electrical and electronic equipment within the scope of Regulation on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012. Use of articles already in use in Turkey before the enforcement date of POPs Regulation, containing Tetrabromodiphenyl ether as a constituent of such articles shall be allowed. Third subparagraph of Article 6(2) shall apply in relation to such articles.
Pentabromodiphenyl ether C ₁₂ H ₅ Br ₅ O	60348-60-9		<ol style="list-style-type: none"> For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of pentabromodiphenyl ether equal to or below 10 mg/kg (0,001 % by weight) when it occurs in substances, preparations, articles or as constituents of the flame-retarded parts of articles. By way of derogation, the production, placing on the market and use of the following shall be allowed: <ol style="list-style-type: none"> without prejudice to subparagraph (b), articles and preparations containing concentrations below 0,1 % of pentabromodiphenyl ether by weight when produced partially or fully from recycled materials or materials from waste prepared for re-use; electrical and electronic equipment within the scope of Regulation on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012. Use of articles already in use in Turkey before the enforcement date of POPs Regulation, containing Pentabromodiphenyl ether as a constituent of such articles shall be allowed. Third subparagraph of Article 6(2) shall apply in relation to such articles.
Hexabromodiphenyl ether C ₁₂ H ₄ Br ₆ O	68631-49-2 207122-15-4		<ol style="list-style-type: none"> For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of hexabromodiphenyl ether equal to or below 10 mg/kg (0,001 % by weight) when it occurs in substances, preparations, articles or as constituents of the flame-retarded parts of articles. By way of derogation, the production, placing on the market and use of the following shall be allowed: <ol style="list-style-type: none"> without prejudice to subparagraph (b), articles and preparations containing concentrations below 0,1 % of hexabromobiphenyl ether by weight when produced partially or fully from recycled materials or materials from waste prepared for re-use; electrical and electronic equipment within the scope of Regulation on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012. Use of articles already in use in Turkey before the enforcement date of POPs Regulation, containing hexabromodiphenyl ether as a constituent of such articles shall be allowed. Third subparagraph of Article 6(2) shall apply in relation to such articles.



Heptabromodiphenyl ether C12H3Br7O	446255-22-7 207122-16-5		<ol style="list-style-type: none"> For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of heptabromodiphenyl ether equal to or below 10 mg/kg (0,001 % by weight) when it occurs in substances, preparations, articles or as constituents of the flame-retarded parts of articles. By way of derogation, the production, placing on the market and use of the following shall be allowed: <ol style="list-style-type: none"> without prejudice to subparagraph (b), articles and preparations containing concentrations below 0,1 % of heptabromobiphenyl ether by weight when produced partially or fully from recycled materials or materials from waste prepared for re-use; electrical and electronic equipment within the scope of Regulation on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012. Use of articles already in use in Turkey before the enforcement date of POPs Regulation, containing heptabromodiphenyl ether as a constituent of such articles shall be allowed. Third subparagraph of Article 6(2) shall apply in relation to such articles.
Decabromodiphenyl ether	1163-19-5		<ol style="list-style-type: none"> For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of decabromodiphenyl ether equal to or below 10 mg/kg (0,001 % by weight) when it occurs in substances, preparations, articles or as constituents of the flame-retarded parts of articles. By way of derogation, the production, placing on the market and use of the following shall be allowed: <ol style="list-style-type: none"> without prejudice to subparagraph (b), articles and preparations containing concentrations below 0,1 % of decabromobiphenyl ether by weight when produced partially or fully from recycled materials or materials from waste prepared for re-use; electrical and electronic equipment within the scope of Regulation on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012. Use of articles already in use in Turkey before the enforcement date of POPs Regulation, containing decabromodiphenyl ether as a constituent of such articles shall be allowed. Third subparagraph of Article 6(2) shall apply in relation to such articles.
Perfluorooctane sulfonic acid and its derivatives (PFOS) C8F17SO2X (X = OH, Metal salt (O-M+), halide, amide, and other derivatives including polymers)			<ol style="list-style-type: none"> For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of PFOS equal to or below 10 mg/kg (0,001 % by weight) when it occurs in substances or in preparations.. For the purposes of this entry, Article 6(1) (b) shall apply to concentrations of PFOS in semi-finished products or articles, or parts thereof, if the concentration of PFOS is lower than 0,1 % by weight calculated with reference to the mass of structurally or micro-structurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is lower than 1 µ g/m2 of the coated material. Use of articles already in use in Turkey before the enforcement date of POPs Regulation, containing PFOS as a constituent of such articles shall be allowed. Third subparagraph of Article 6(2) shall apply in relation to such articles. If the amount released into the environment is minimized, the production and placing on the market of PFOS until 1 January 2019 for the following specific uses is allowed: <ol style="list-style-type: none"> photoresists or anti reflective coatings for photolithography processes; photographic coatings applied to films, papers, or printing plates; mist suppressants for non-decorative hard chromium (VI) plating in closed loop systems; hydraulic fluids for aviation. For the exceptions in subparagraphs (a) - (d) above, the Guidance document published by the Ministry regarding the implementation of the best available techniques for minimizing PFOS emissions is taken into consideration. Substance is used as an analytical test method for TS 15968 standard "PFOS Determination" to determine the compliance of preparations and articles with paragraphs 1 and 2.
Polychlorinated Biphenyls (PCB)	1336-36-3 and others	215-648-1 and others	Without prejudice to the provisions of the Regulation on the Control of Polychlorinated Biphenyls and Polychlorinated Terphenyls published in the Official Gazette N°26739 dated 27/12/2007, the use of items in use on the date of entry into force of this Regulation is permitted.



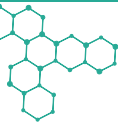
Hexabromocyclododecane (HBCDD) "Hexabromocyclododecane" hekzabromosiklododekan, 1,2,5,6,9,10-Hexabromocyclododecane and the main diastereoisomers: alpha-hexabromocyclododecane; beta-hexabromocyclododecane; and gamma-hexabromocyclododecane	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8	247-148-4 221-695-9	<p>1. For the purposes of this entry, Article 6(1)(b) shall apply to concentrations of Hexabromocyclododecane equal to or below 100 mg/kg (0,01 % by weight) when it occurs in substances, preparations, articles or as constituents of the flame-retarded parts of articles. This situation will be reviewed by the Ministry on March 22, 2019.</p> <p>2. The use of hexabromocyclododecane on its own or in a mixture in the production of expanded polystyrene articles and its production and placing on the market for this purpose is permitted until 28.11.2019. Pursuant to this paragraph The placing on the market and use in buildings of expanded polystyrene articles containing Hexabromocyclododecane as a component and manufactured in accordance with the exemption specified in this paragraph are permitted for up to 6 months from the expiration of this exemption period. These items that have been used until this date can continue to be used.</p> <p>3. Without prejudice to the exemption in paragraph 2, paragraph 6 shall apply to articles containing hexabromocyclododecane as a component and manufactured in accordance with the exemption specified in Paragraph 2.</p> <p>4. Articles containing Hexabromocyclododecane as a component and that were in use on or before the POPs Regulation came into force may continue to be used, placed on the market and Paragraph 6 will not apply. The third paragraph of Article 6 (2) applies with respect to these articles.</p> <p>5. The placing on the market of imported expanded polystyrene articles containing Hexabromocyclododecane as a component and their use in buildings are permitted until the exemption date specified in Paragraph 2 and Paragraph 6 applies to these articles manufactured in accordance with the exemption in Paragraph 2. Until this date, items that are currently in use may continue to be used.</p> <p>6. Without prejudice to the provisions of the relevant legislation on the classification, packaging and labeling of substances and mixtures, the expanded polystyrene containing hexabromocyclododecane subject to the exemption specified in Paragraph 2 should be identifiable by life cycle labeling or other means.</p>
Hexachlorobutadine	87-68-3	201-765-5	<p>1. The placing on the market and the use of articles containing Hexachlorobutadine as a component, manufactured on or before the effective date of POPs Regulation, is permitted until 1 January 2019.</p> <p>2. The placing on the market and use of articles containing Hexachlorobutadine as a component which were in use on or before the date of entry into force of POPs Regulation is allowed.</p> <p>3. Third paragraph of Article 6 (2) applies to the articles referred to in paragraphs 1 and 2 above.</p>
Polychlorinated naphthalenes (Polychlorinated naphthalenes refer to naphthalene ring system-based chemical compounds in which one or more hydrogen atoms have been replaced by chlorine atoms.)			<p>1. The placing on the market and use of articles containing polychlorinated naphthalenes as a component, which were in use on or before the date of entry into force of POPs Regulation, is permitted until 1 January 2019.</p> <p>2. The placing on the market and use of articles containing polychlorinated naphthalenes as components which were in use on or before the date of entry into force of POPs Regulation is allowed.</p> <p>3. Third paragraph of Article 6 (2) applies to the articles referred to in paragraphs 1 and 2 above.</p>



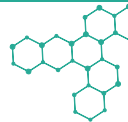
Alkanes C10-C13, chloro (short chain chlorinated paraffins) (KZKP)	85535-84-8 68920-70-7 71011-12-6 85536-22-7 85681-73-8 108171-26-2	287- 476-5	1. The production, placing on the market and use of substances or mixtures containing KZKP at concentrations less than 1% by weight or articles containing KZKP at concentrations less than 0.15% by weight, provided that there is a change, is allowed. 2. Use of KZKP is allowed in the following situations: a) Conveyor belts containing KZKP and dam sealing materials containing KZKP in the mining sector in use on or before the publication date of the POPs Regulation, b) Articles containing KZKP other than those mentioned in (a) that were in use on or before January 1, 2014. 3. Third paragraph of Article 6 (2) applies to the articles referred to in paragraph 2 above.
Pentachloro- phenol, its salts and esters	87-86-5 131-52-2 27735-64-4 3772-94-9 1825-21-4		1. The placing on the market and use of articles containing Pentachlorophenol as a component, manufactured on or before the entry into force of POPs Regulation, is permitted until 1 January 2019. 2. It is allowed to place on the market and use of articles containing Pentachlorophenol as a component, which were in use on or before the entry into force of POPs Regulation.. 3. Third paragraph of Article 6 (2) applies to the articles referred to in paragraphs 1 and 2 above.

Annex-2: List of Banned/Restricted Chemicals under Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (Annex-17)

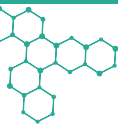
Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
1. Polychlorinated terphenyls (PCTs)	Shall not be placed on the market, or used: — as substances, — in mixtures, including waste oils, or in equipment, in concentrations greater than 50 mg/kg (0,005 % by weight).
2. Chloroethene (vinyl chloride) CAS No 75-01-4 EC No 200-831-0	Chloroethene shall not be used as propellant in aerosols for any use. Aerosols dispensers containing the substance as propellant shall not be placed on the market.
3. Liquid substances or mixtures which are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Bylaw on Classification, Labelling and Packaging of Substances and Mixtures: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: a) ornamental articles intended to produce light or color effects by means of different phases, for example in ornamental lamps and ashtrays, b) tricks and jokes, c) games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a coloring agent, unless required for fiscal reasons, or perfume, or both, if they: a) can be used as fuel in decorative oil lamps for supply to the general public, and, b) present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the Turkish Standard on Decorative oil lamps-Safety Rules and Test Methods Standards (TS EN 14059) adopted by the Turkish Standardization Institute. 5. Without prejudice to the provisions of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, 'Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage'; (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked as follows: 'Just a sip of grill lighter may lead to— or even sucking the wick of lamps — life threatening lung damage'; (c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre.



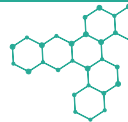
4. Tris (2,3 dibromopropyl) phosphate CAS No 126-72-7	Shall not be used in textile articles, such as garments, undergarments and linen, intended to come into contact with the skin and articles not complying with paragraph 1 shall not be placed on the market.
5. Benzene CAS No 71-43-2 EC No 200-753-7	1. Shall not be used in toys or parts of toys where the concentration of benzene in the free state is greater than 5 mg/kg (0,0005 %) of the weight of the toy or part of toy. 2. Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market, or used, a) as a substance, b) as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0,1 % by weight. 4. However, paragraph 3 shall not apply to: (a) motor fuels which are covered by Bylaw on Environmental Effects of Gasoline and Diesel Oil published in Official Gazette dated 01/04/2017 and numbered 30025; (b) substances and mixtures for use in industrial processes not allowing for the emission of benzene in quantities in excess of those laid down in Bylaw on Environmental Effects of Gasoline and Diesel Oil, (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1 % volume/volume.
6. Asbestos fibres Crocidolite CAS No 12001-28-4 Amosite CAS No 12172-73-5 Anthophyllite CAS No 77536-67-5 Actinolite CAS No 77536-66-4 Tremolite CAS No 77536-68-6 Chrysotile CAS No 12001-29-5 CAS No 132207-32-0	1. The manufacture, placing on the market and use of these fibres and of articles and mixtures containing these fibres added intentionally is prohibited. 2. The use of articles containing asbestos fibres referred to in paragraph 1 which were already installed and/or in service before 26 December 2008 shall continue to be permitted until they are disposed of or reach the end of their service life and articles containing these fibres shall be labelled in accordance with Appendix VII of this Annex. 3. Without prejudice to the application of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, the placing on the market and use of articles containing these fibres, as permitted according to the preceding derogations, shall be permitted only if suppliers ensure before the placing on the market that articles bear a label in accordance with Appendix 7 to this Annex.
7. Tris(aziridinyl)phosphin oxide CAS No 545-55-1 EC No 208-892-5	1. Shall not be used in textile articles, such as garments, undergarments and linen, intended to come into contact with the skin. 2. Articles not complying with paragraph 1 shall not be placed on the market.
8. Polybromobiphenyls; Polybrominatedbiphenyls (PBB) CAS No 59536-65-1	1. Shall not be used in textile articles, such as garments, undergarments and linen, intended to come into contact with the skin. 2. Articles not complying with paragraph 1 shall not be placed on the market.
9. (a) Soap bark powder (Quillaja saponaria) and its derivatives containing saponines CAS No 68990-67-0 EC 273-620-4 (b) Powder of the roots of Helleborus viridis and Helleborus niger (c) Powder of the roots of Veratrum album and Veratrum nigrum (c) Benzidine and/or its derivatives CAS No 92-87-5 EC No 202-199-1 (d) o-Nitrobenzaldehyde CAS No 552-89-6 EC No 209-025-3 (f) Wood powder	1. Shall not be used, in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. 2. Jokes and hoaxes, or mixtures or articles intended to be used as such, not complying with paragraph 1 shall not be placed on the market. 3. However, paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.



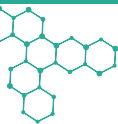
<p>10. (a) Ammonium sulphide CAS No 12135-76-1 EC No 235-223-4 (b) Ammonium hydrogen sulphide CAS No 12124-99-1 EC No 235-184-3 (c) Ammonium polysulphide CAS No 9080-17-5 EC No 232-989-1</p>	<p>1. Shall not be used, in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. 2. Jokes and hoaxes, or mixtures or articles intended to be used as such, not complying with paragraph 1 shall not be placed on the market. 3. However, paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.</p>
<p>11. Volatile esters of bromoacetic acids: (a) Methyl bromoacetate CAS No 96-32-2 EC No 202-499-2 (b) Ethyl bromoacetate CAS No 105-36-2 EC No 203-290-9 (c) Propyl bromoacetate CAS No 35223-80-4 (c) Butyl bromoacetate CAS No 18991-98-5 EC No 242-729-9</p>	<p>1. Shall not be used, in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. 2. Jokes and hoaxes, or mixtures or articles intended to be used as such, not complying with paragraph 1 shall not be placed on the market. 3. However, paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.</p>
<p>12. 2-Naphthylamine CAS No 91-59-8 EC No 202-080-4 and its salts 13. Benzidine CAS No 92-87-5 EC No 202-199-1 and its salts 14. 4-Nitrobiphenyl CAS No 92-93-3 Einecs EC No 202-204-7 15. 4-Aminobiphenyl xenylamine CAS No 92-67-1 Einecs EC No 202-177-1 and its salts</p>	<p>The following shall apply to entries 12 to 15: Shall not be placed on the market, or used, as substances or in mixtures in concentrations greater than 0,1 % by weight.</p>
<p>16. Lead carbonates: (a) Neutral anhydrous carbonate (PbCO₃) CAS No 598-63-0 EC No 209-943-4 (b) Trilead-bis(carbonate)-dihydroxide 2Pb CO₃-Pb(OH)₂ CAS No 1319-46-6 EC No 215-290-6</p>	<p>1. Shall not be placed on the market, or used, as substances or in mixtures, where the substance or mixture is intended for use as paint. 2. However, the use of the substance or mixture for the restoration and maintenance of works of art and historic buildings and their interiors is exempted from these provisions.</p>
<p>17. Lead sulphates: (a) PbSO₄ CAS No 7446-14-2 EC No 231-198-9 (b) Pb₂ SO₄ CAS No 15739-80-7 EC No 239-831-0</p>	<p>1. Shall not be placed on the market, or used, as substances or in mixtures, where the substance or mixture is intended for use as paint. 2. However, the use of the substance or mixture for the restoration and maintenance of works of art and historic buildings and their interiors is exempted from these provisions.</p>
<p>18. Mercury compounds</p>	<p>1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use: (a) to prevent the fouling by micro-organisms, plants or animals of: — the hulls of boats, — cages, floats, nets and any other appliances or equipment used for fish or shellfish farming, — any totally or partly submerged appliances or equipment; (b) in the preservation of wood; (c) in the impregnation of heavy-duty industrial textiles and yarn intended for their manufacture; (c) in the treatment of industrial waters, irrespective of their use.</p>



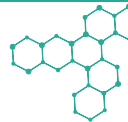
<p>18a. Mercury CAS No 7439-97-6 EC No 231-106-7</p>	<p>1. Shall not be placed on the market: (a) in fever thermometers; (b) in other measuring devices intended for sale to the general public (such as manometers, barometers, sphygmomanometers, thermometers other than fever thermometers).</p> <p>2. The restriction in paragraph 1(b) shall not apply to: (a) measuring devices more than 60 years old on the publication date of this Bylaw; (b) barometers (except barometers within point (a) until 31 December 2018).</p> <p>3. The following mercury-containing measuring devices intended for industrial and professional uses shall not be placed on the market after 31 December 2018: (a) barometers; (b) hygrometers; (c) manometers; (d) sphygmomanometers; (e) strain gauges to be used with plethysmographs; (f) tensiometers; (g) thermometers and other non-electrical thermometric applications. The restriction shall also apply to measuring devices under points (a) to (g) which are placed on the market empty if intended to be filled with mercury.</p> <p>4. The restriction in paragraph 3 shall not apply to: (a) sphygmomanometers to be used: (i) in epidemiological studies which are ongoing on the publication date of this Bylaw; (ii) as reference standards in clinical validation studies of mercury-free sphygmomanometers; (b) thermometers exclusively intended to perform tests according to standards that require the use of mercury thermometers until 31 December 2020; (c) mercury triple point cells which are used for the calibration of platinum resistance thermometers.</p> <p>5. The following mercury-using measuring devices intended for professional and industrial uses shall not be placed on the market after 31 December 2018: (a) mercury pycnometers; (b) mercury metering devices for determination of the softening point.</p> <p>6. The restrictions in paragraphs 3 and 5 shall not apply to: (a) measuring devices more than 60 years old on the date of publication of this Bylaw; (b) measuring devices which are to be displayed in public exhibitions for cultural and historical purposes.</p>
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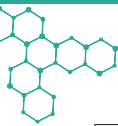
19. Arsenic compounds	<p>1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use to prevent the fouling by micro-organisms, plants or animals of:</p> <ul style="list-style-type: none"> a) the hulls of boats, b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming, c) any totally or partly submerged appliances or equipment. <p>2. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters, irrespective of their use.</p> <p>3. Shall not be used in the preservation of wood. Furthermore, wood so treated shall not be placed on the market.</p> <p>4. By way of derogation from paragraph 3:</p> <ul style="list-style-type: none"> (a) Relating to the substances and mixtures for the preservation of wood: these may only be used in industrial installations using vacuum or pressure to impregnate wood if they are solutions of inorganic compounds of the copper, chromium, arsenic (CCA) type C. Wood so treated shall not be placed on the market before fixation of the preservative is completed. (b) Wood treated with CCA solution in accordance with point (a) may be placed on the market for professional and industrial use provided that the structural integrity of the wood is required for human or livestock safety and skin contact by the general public during its service life is unlikely: <ul style="list-style-type: none"> — as structural timber in public and agricultural buildings, office buildings, and industrial premises, — in bridges and bridgework, — as constructional timber in freshwater areas and brackish waters, for example jetties and bridges, — as noise barriers, — in avalanche control, — in highway safety fencing and barriers, — as debarked round conifer livestock fence posts, — in earth retaining structures, — as electric power transmission and telecommunications poles, — as underground railway sleepers. (c) Without prejudice to the Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure before the placing on the market that all treated wood placed on the market is individually labelled 'For professional and industrial installation and use only, contains arsenic'. In addition, all wood placed on the market in packs shall also bear a label stating 'Wear gloves when handling this wood. Wear a dust mask and eye protection when cutting or otherwise crafting this wood. Waste from this wood shall be treated as hazardous by an authorized undertaking'. (c) Treated wood referred to under point (a) shall not be used: <ul style="list-style-type: none"> — in residential or domestic constructions, whatever the purpose, — in any application where there is a risk of repeated skin contact, — in marine waters, — for agricultural purposes other than for livestock fence posts and structural uses in accordance with point (b), — in any application where the treated wood may come into contact with intermediate or finished products intended for human and/or animal consumption. <p>5. Wood treated with arsenic compounds that was in use before 01 January 2014, or that was placed on the market in accordance with paragraph 4 may remain in place and continue to be used until it reaches the end of its service life.</p> <p>6. Wood treated with CCA type C that was in use before 01 January 2014, or that was placed on the market in accordance with paragraph 4:</p> <ul style="list-style-type: none"> — may be used or reused subject to the conditions pertaining to its use listed under points 4(b), (c) and (c), — may be placed on the market subject to the conditions pertaining to its use listed under points 4(b), (c) and (c). <p>7. Wood treated with other types of CCA solutions that was in use before 01 January 2014 shall be permitted to be used in the following conditions:</p> <ul style="list-style-type: none"> — to be used or reused subject to the conditions pertaining to its use listed under points 4 (b), (c) and (c), — to be placed on the market subject to the conditions pertaining to its use listed under points 4(b), (c) and (c).
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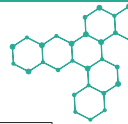
<p>20. Organostannic compounds</p>	<p>1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is acting as biocide in free association point. 2. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants or animals of: (a) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes; (b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming; (c) any totally or partly submerged appliance or equipment. 3. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters. 4. Tri-substituted organostannic compounds: (a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPT) compounds shall not be used in articles where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. (b) Articles not complying with point (a) shall not be placed on the market. 5. Dibutyltin (DBT) compounds: (a) Dibutyltin (DBT) compounds shall not be used in mixtures and articles for supply to the general public where the concentration in the mixture or the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. (b) Articles and mixtures not complying with point (a) shall not be placed on the market. (c) By way of derogation, points (a) and (b) shall not apply to the following articles and mixtures for supply to the general public:</p> <ul style="list-style-type: none"> — one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives, — paints and coatings containing DBT compounds as catalysts when applied on articles, — soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC, — outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades. <p>(d) By way of derogation, points (a) and (b) shall not apply to materials and articles regulated under Bylaw on Turkish Food Codex Substances and Materials In Contact With Food published in the Official Gazette dated 29/12/2011 and numbered 28157 (3rd bis).</p> <p>6. Dioctyltin (DOT) compound: (a) Dioctyltin (DOT) compounds shall not be used in the following articles for supply to, or use by, the general public, where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin:</p> <ul style="list-style-type: none"> — textile articles intended to come into contact with the skin, — gloves, — footwear or part of footwear intended to come into contact with the skin, — wall and floor coverings, — childcare articles, — female hygiene products, — nappies, — two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits). <p>(b) Articles not complying with point (a) shall not be placed on the market, except for articles that were already in use.</p>
<p>21. Di-μ-oxo-di-n-butylstannio-hydroxyborane/Dibutyltin hydrogen borate C8H19BO3Sn (DBB) CAS No 75113-37-0 EC No 401-040-5</p>	<p>1. Shall not be placed on the market, or used, as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight.</p> <p>2. However, the first paragraph shall not apply to this substance (DBB) or mixtures containing it if these are intended solely for conversion into articles, among which this substance will no longer feature in a concentration equal to or greater than 0,1 %.</p>
<p>22. Pentachlorophenol CAS No 87-86-5 EC No 201-778-6 and its salts and esters</p>	<p>Shall not be placed on the market, or used as a substance or as a constituent in other substances, or in mixtures, in a concentration equal to or greater than 0,1 % by weight.</p>



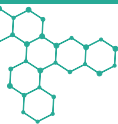
<p>23. Cadmium CAS No 7440-43-9 EC No 231-152-8 and its compounds</p>	<p>For the purpose of this Bylaw, the codes and chapters indicated in square brackets are the codes and chapters of the tariff and statistical nomenclature of Common Customs Tariff (GTIP). 1. Shall not be used in mixtures and articles produced from the following synthetic organic polymers (hereafter referred to as plastic material):</p> <ul style="list-style-type: none"> — polymers or copolymers of vinyl chloride (PVC) [3904 10] [3904 21] — polyurethane (PUR) [3909 50] — low-density polyethylene (LDPE), with the exception of low-density polyethylene used for the production of colored masterbatch [3901 10] — cellulose acetate (CA) [3912 11] — cellulose acetate butyrate (CAB) [3912 11] — epoxy resins [3907 30] — melamine-formaldehyde (MF) resins [3909 20] — urea-formaldehyde (UF) resins [3909 10] — unsaturated polyesters (UP) [3907 91] — polyethylene terephthalate (PET) [3907 60] — polybutylene terephthalate (PBT) — transparent/general-purpose polystyrene [3903 11] — acrylonitrile methylmethacrylate (AMMA) — cross-linked polyethylene (VPE) — high-impact polystyrene — polypropylene (PP) [3902 10] <p>(a) Mixtures and articles produced from plastic material as listed above shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,01 % by weight of the plastic material.</p> <p>(b) By way of derogation, point(a) of the first paragraph shall not apply to articles placed on the market before 21 May 2015.</p> <p>2. Shall not be used or placed on the market in paints with codes [3208] [3209] in a concentration (expressed as Cd metal) equal to or greater than 0,01 % by weight. For paints with codes [3208] [3209] with a zinc content exceeding 10 % by weight of the paint, the concentration of cadmium (expressed as Cd metal) shall not be equal to or greater than 0,1 % by weight.</p> <p>Painted articles shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,1 % by weight of the paint on the painted article.</p> <p>3. By way of derogation, paragraphs 1 and 2 shall not apply to articles colored with mixtures containing cadmium for safety reasons.</p> <p>4. By way of derogation, point(a) of the paragraph 1, shall not apply to:</p> <ul style="list-style-type: none"> — mixtures produced from PVC waste, hereinafter referred to as 'recovered PVC'; — mixtures and articles containing recovered PVC if their concentration of cadmium (expressed as Cd metal) does not exceed 0,1 % by weight of the plastic material in the following rigid PVC applications: <ul style="list-style-type: none"> (a) profiles and rigid sheets for building applications; (b) doors, windows, shutters, walls, blinds, fences, and roof gutters; (c) decks and terraces; (ç) cable ducts; (d) pipes for non-drinking water if the recovered PVC is used in the middle layer of a multilayer pipe and is entirely covered with a layer of newly produced PVC in compliance with paragraph 1 above. <p>Suppliers shall ensure, before the placing on the market of mixtures and articles containing recovered PVC for the first time, that these are visibly, legibly and indelibly marked as follows: 'Contains recovered PVC' or with the following pictogram:</p> <div data-bbox="415 1157 479 1230" data-label="Image"> </div> <p>5. For the purpose of this entry, 'cadmium plating' means any deposit or coating of metallic cadmium on a metallic surface.</p> <p>Shall not be used for cadmium plating metallic articles or components of the articles used in the following sectors/applications: (a) equipment and machinery for:</p> <ul style="list-style-type: none"> — food production [8210] [8417 20] [8419 81] [8421 11] [8421 22] [8422] [8435] [8437] [8438] [8476 11] — agriculture [8419 31] [8424 81] [8432] [8433] [8434] [8436] — cooling and freezing [8418] — printing and book-binding [8440] [8442] [8443]
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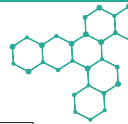
	<p>(b) equipment and machinery for the production of:</p> <ul style="list-style-type: none"> — household goods [7321] [8421 12] [8450] [8509] [8516] — furniture [8465] [8466] [9401] [9402] [9403] [9404] — sanitary ware [7324] — central heating and air conditioning plant [7322] [8403] [8404] [8415] <p>In any case, whatever their use or intended final purpose, the placing on the market of cadmium-plated articles or components of such articles used in the sectors/applications listed in points (a) and (b) above and of articles manufactured in the sectors listed in point (b) above is prohibited. 6. The provisions referred to in paragraph 5 shall also be applicable to cadmium-plated articles or components of such articles when used in the sectors/applications listed in points (a) and (b) below and to articles manufactured in the sectors listed in (b) below: (a) equipment and machinery for the production of:</p> <ul style="list-style-type: none"> — paper and board [8419 32] [8439] [8441] textiles and clothing [8444] [8445] [8447] [8448] [8449] [8451] [8452] <p>(b) equipment and machinery for the production of:</p> <ul style="list-style-type: none"> — industrial handling equipment and machinery [8425] [8426] [8427] [8428] [8429] [8430] [8431] — road and agricultural vehicles [chapter 87] — rolling stock [chapter 86] — vessels [chapter 89] <p>7. However, the restrictions in paragraphs 5 and 6 shall not apply to:</p> <ul style="list-style-type: none"> — articles and components of the articles used in the aeronautical, aerospace, mining, offshore and nuclear sectors whose applications require high safety standards and in safety devices in road and agricultural vehicles, rolling stock and vessels, — electrical contacts in any sector of use, where that is necessary to ensure the reliability required of the apparatus on which they are installed. <p>8. Shall not be used in brazing fillers in concentration equal to or greater than 0,01 % by weight. Brazing fillers shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,01 % by weight. For the purpose of this paragraph brazing shall mean a joining technique using alloys and undertaken at temperatures above 450 °C. 9. By way of derogation, paragraph 8 shall not apply to brazing fillers used in defense and aerospace applications and to brazing fillers used for safety reasons. 10. Shall not be used or placed on the market if the concentration is equal to or greater than 0,01 % by weight of the metal in: (i) metal beads and other metal components for jewelry making; (ii) metal parts of jewelry and imitation jewelry articles and hair accessories, including:</p> <ul style="list-style-type: none"> — bracelets, necklaces and rings, — piercing jewelry, — wrist-watches and wrist-wear, — broches and cufflinks. <p>11. By way of derogation, paragraph 10 shall not apply to articles placed on the market before 21 May 2015 and jewelry more than 50 years old on 21 May 2015.</p>
<p>24. Monomethyl — tetrachlorodiphenyl methane Trade name: Ugilec 141 CAS No 76253-60-6</p>	<p>1. Shall not be placed on the market, or used, as a substance or in mixtures. Articles containing the substance shall not be placed on the market.</p> <p>2. By way of derogation, paragraph 1 shall not apply:</p> <p>(a) in the case of plant and machinery already in service on the date of entry into force of this entry, until such plant and machinery is disposed of.</p>
<p>25. Monomethyl-dichloro-diphenyl methane Trade name: Ugilec 121 Ugilec 21</p>	<p>Shall not be placed on the market, or used, as a substance or in mixtures. Articles containing the substance shall not be placed on the market.</p>
<p>26. Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers Trade name: DBBT CAS No 99688-47-8</p>	<p>Shall not be placed on the market, or used, as a substance or in mixtures. Articles containing the substance shall not be placed on the market.</p>



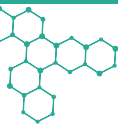
<p>27. Nickel CAS No 7440-02-0 EC No 231-111-4 and its compounds</p>	<p>1. Shall not be used:</p> <p>(a) in any post assemblies which are inserted into pierced ears and other pierced parts of the human body unless the rate of nickel release from such post assemblies is less than 0,2 µg/cm²/week (migration limit);</p> <p>(b) in articles intended to come into direct and prolonged contact with the skin such as:</p> <ul style="list-style-type: none"> — earrings, — necklaces, bracelets and chains, anklets, finger rings, — wrist-watch cases, watch straps and tighteners, — rivet buttons, tighteners, rivets, zippers and metal marks, when these are used in garments, <p>if the rate of nickel release from the parts of these articles coming into direct and prolonged contact with the skin is greater than 0,5 µg/cm²/week.</p> <p>(c) in articles referred to in point (b) where these have a non-nickel coating unless such coating is sufficient to ensure that the rate of nickel release from those parts of such articles coming into direct and prolonged contact with the skin will not exceed 0,5 µg/cm²/week for a period of at least two years of normal use of the article.</p> <p>2. Articles which are the subject of paragraph 1 shall not be placed on the market unless they conform to the requirements set out in that paragraph.</p> <p>3. The standards adopted by the Turkish Standardization Institute (TSE) and European Committee for Standardization (CEN) shall be used as the test methods for demonstrating the conformity of articles to paragraphs 1 and 2.</p>
<p>28. Substances which appear in Part 3 of Annex VI to Bylaw on Classification, Labelling and Packaging of Substances and Mixtures classified as carcinogen category 1A or 1B (Table 3.1) and listed as follows:</p> <ul style="list-style-type: none"> — Carcinogen category 1A (Table 3.1) listed in Appendix 1 — Carcinogen category 1B (Table 3.1) listed in Appendix 2 <p>29. Substances which appear in Part 3 of Annex VI to Bylaw on Classification, Labelling and Packaging of Substances and Mixtures classified as germ cell mutagen category 1A or 1B (Table 3.1) and listed as follows:</p> <ul style="list-style-type: none"> — Mutagen category 1A (Table 3.1) listed in Appendix 3 — Mutagen category 1B (Table 3.1) listed in Appendix 4 <p>30. Substances which appear in Part 3 of Annex VI to Bylaw on Classification, Labelling and Packaging of Substances and Mixtures classified as toxic to reproduction category 1A or 1B (Table 3.1) and listed as follows:</p> <ul style="list-style-type: none"> — Reproductive toxicant category 1A adverse effects on sexual function and fertility or on development (Table 3.1) listed in Appendix 5 — Reproductive toxicant category 1B adverse effects on sexual function and fertility or on development (Table 3.1) listed in Appendix 6 	<p>Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30:</p> <p>1. Shall not be placed on the market, or used,</p> <ul style="list-style-type: none"> — as substances, — as constituents of other substances, or, — in mixtures, <p>for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:</p> <ul style="list-style-type: none"> — either the relevant specific concentration limit specified in Part 3 of Annex VI to Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, or, — the relevant generic concentration limit specified in Part 3 of Annex I of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures. <p>Without prejudice to the implementation of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows:</p> <p>'Restricted to professional users'.</p> <p>2. By way of derogation, paragraph 1 shall not apply to:</p> <p>(a) medicinal or veterinary products as defined by Bylaw on Licensing of Human Medicinal Products published in the Official Gazette dated 19/01/2005 and numbered 25705, Bylaw on Packaging and Labelling of Human Medicinal Products published in the Official Gazette dated 12/08/2005 and numbered 25904, Bylaw on Veterinary Medicinal Products published in the Official Gazette dated 24/12/2012 and numbered 28152 ;</p> <p>(b) cosmetic products as defined by Bylaw on Cosmetics published in the Official Gazette dated 23/05/2005 and numbered 25823;</p> <p>(c) the following fuels and oil products:</p> <ul style="list-style-type: none"> — motor fuels which are covered by Bylaw on Control of Exhaust Gas Emission and Quality of Gasoline and Diesel Fuel published in the Official Gazette dated 30/11/2013 and numbered 28837, — mineral oil products intended for use as fuel in mobile or fixed combustion plants, — fuels sold in closed systems (e.g. liquid gas bottles);



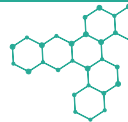
<p>CAS No 8001-58-9 EC No 232-287-5 (b) Creosote oil; wash oil CAS No 61789-28-4 EC No 263-047-8 (c) Distillates (coal tar), naphthalene oils; naphthalene oil CAS No 84650-04-4 EC No 283-484-8 (c) Creosote oil, acenaphthene fraction; wash oil CAS No 90640-84-9 EC No 292-605-3 (d) Distillates (coal tar), upper; heavy anthracene oil CAS No 65996-91-0 EC No 266-026-1 (e) Anthracene oil CAS No 90640-80-5 EC No 292-602-7 (f) Tar acids, coal, crude; crude phenols CAS No 65996-85-2 EC No 266-019-3 (g) Creosote, wood CAS No 8021-39-4 EC No 232-419-1 (g) Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline CAS No 122384-78-5 EC No 310-191-5</p>	<p>1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for the treatment of wood. 2. By way of derogation from paragraph 1: (a) The substances and mixtures may be used for wood treatment in industrial installations or by professionals covered by legislation on the protection of workers for in situ retreatment only if they contain: (i) benzo[a]pyrene at a concentration of less than 50 mg/kg (0,005 % by weight), and (ii) water extractable phenols at a concentration of less than 3 % by weight. Such substances and mixtures for use in wood treatment in industrial installations or by professionals: — may be placed on the market only in packaging of a capacity equal to or greater than 20 litres, — shall not be sold to consumers. Without prejudice to the application of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is visibly, legibly and indelibly marked as follows: 'For use in industrial installations or professional treatment only'. (b) Wood treated in industrial installations or by professionals according to subparagraph (a) which is placed on the market for the first time or retreated in situ may be used for professional and industrial use only, for example on railways, in electric power transmission and telecommunications, for fencing, for agricultural purposes (for example stakes for tree support) and in harbours and waterways. (c) The prohibition in paragraph 1 on the placing on the market shall not apply to wood which has been treated with substances listed in entry 31 (a) to (g) before 31 December 2018 and is placed on the second-hand market for re-use. 3. Treated wood referred to under paragraph 2(b) and (c) shall not be used: — inside buildings, whatever their purpose, — in toys, — in playgrounds, — in parks, gardens, and outdoor recreational and leisure facilities where there is a risk of frequent skin contact, — in the manufacture of garden furniture such as picnic tables, — for the manufacture and use and any re-treatment of: — containers intended for growing purposes, — packaging that may come into contact with raw materials, intermediate or finished products destined for human and/or animal consumption, — other materials which may contaminate the articles mentioned above.</p>
<p>32. Chloroform CAS No 67-66-3 EC No 200-663-8 34. 1,1,2-Trichloroethane CAS No 79-00-5 EC No 201-166-9 35. 1,1,2,2-Tetrachloroethane CAS No 79-34-5 EC No 201-197-8 36. 1,1,1,2-Tetrachloroethane CAS No 630-20-6 37. Pentachloroethane CAS No 76-01-7 EC No 200-925-1 38. 1,1-Dichloroethene CAS No 75-35-4 EC No 200-864-0</p>	<p>Without prejudice to the other parts of this Annex, the following shall apply to entries 32 to 38. 1. Shall not be placed on the market, or used, — as substances, — as constituents of other substances, or in mixtures in concentrations equal to or greater than 0,1 % by weight, where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. 2. Without prejudice to the application Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures containing them in concentrations equal to or greater than 0,1 % by weight is visibly, legibly and indelibly marked as follows: 'For use in industrial installations only'. By way of derogation this provision shall not apply to: (a) medicinal or veterinary products as defined by Bylaw on Veterinary Medicinal Products published in the Official Gazette dated 24/12/2012 and numbered 28152, Bylaw on Licensing of Human Medicinal Products published in the Official Gazette dated 19/01/2005 and numbered 25705, Bylaw on Packaging and Labelling of Human Medicinal Products published in the Official Gazette dated 12/08/2005 and numbered 25904; (b) cosmetic products as defined by Bylaw on Cosmetics published in the Official Gazette dated 23/05/2005 and numbered 25823.</p>



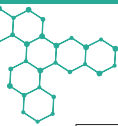
<p>40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Bylaw on Classification, Labelling and Packaging of Substances and Mixtures or not.</p>	<p>1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:</p> <ul style="list-style-type: none"> — metallic glitter intended mainly for decoration, — artificial snow and frost, — 'whoopie' cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs. <p>2. Without prejudice to the application of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:</p> <p>'For professional users only'.</p> <p>3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 of Bylaw on Aerosol Containers published in the Official Gazette dated 30/11/2000 and numbered 24246.</p> <p>4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.</p>
<p>41. Hexachloroethane CAS No 67-72-1 EC No 200-666-4</p>	<p>Shall not be placed on the market, or used, as substance or in mixtures, where the substance or mixture is intended for the manufacturing or processing of non-ferrous metals.</p>
<p>43. Azocolourants and Azodyes</p>	<p>1. Azodyes which, by reductive cleavage of one or more azo groups, may release one or more of the aromatic amines listed in Appendix 8, in detectable concentrations, i.e. above 30 mg/kg (0,003 % by weight) in the articles or in the dyed parts thereof, according to the testing methods listed in Appendix 10, shall not be used, in textile and leather articles which may come into direct and prolonged contact with the human skin or oral cavity, such as:</p> <ul style="list-style-type: none"> a) clothing, bedding, towels, hairpieces, wigs, hats, nappies and other sanitary items, sleeping bags, b) footwear, gloves, wristwatch straps, handbags, purses/wallets, briefcases, chair covers, purses worn round the neck, c) textile or leather toys and toys which include textile or leather garments, c) yarn and fabrics intended for use by the final consumer. <p>2. Furthermore, the textile and leather articles referred to in paragraph 1 shall not be placed on the market unless they conform to the requirements set out in that paragraph.</p> <p>3. Azodyes, which are contained in Appendix 9, 'List of azodyes' shall not be placed on the market, or used, as substances, or in mixtures in concentrations greater than 0,1 % by weight, where the substance or the mixture is intended for coloring textile and leather articles.</p>
<p>45. Diphenylether, octabromo derivative $C_{12}H_2B_{18}O$</p>	<p>1. Shall not be placed on the market, or used:</p> <ul style="list-style-type: none"> — as a substance, — as a constituent of other substances, or in mixtures, in concentrations greater than 0,1 % by weight. <p>2. Articles shall not be placed on the market if they, or flame-retardant parts thereof, contain this substance in concentrations greater than 0,1 % by weight.</p> <p>3. By way of derogation, paragraph 2 shall not apply:</p> <ul style="list-style-type: none"> — to articles that were in use before 31 December 2018, — to electrical and electronic equipment within the scope of Bylaw on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012.



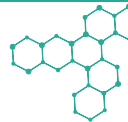
<p>46. (a) Nonylphenol $C_6H_4(OH)C_9H_{19}$ CAS No: 25154-52-3 EC No: 246-672-0</p> <p>(b) Nonylphenol ethoxylates $(C_2H_4O)_n C_{15}H_{24}O$</p>	<p>Shall not be placed on the market, or used, as substances or in mixtures in concentrations equal to or greater than 0,1 % by weight for the following purposes:</p> <ol style="list-style-type: none"> (1) industrial and institutional cleaning except: <ul style="list-style-type: none"> — controlled closed dry cleaning systems where the washing liquid is recycled or incinerated, — cleaning systems with special treatment where the washing liquid is recycled or incinerated. (2) domestic cleaning; (3) textiles and leather processing except: <ul style="list-style-type: none"> — processing with no release into waste water, — systems with special treatment where the process water is pre-treated to remove the organic fraction completely prior to biological waste water treatment (degreasing of sheepskin); (4) emulsifier in agricultural teat dips; (5) metal working except: <ul style="list-style-type: none"> — uses in controlled closed systems where the washing liquid is recycled or incinerated; (6) manufacturing of pulp and paper; (7) cosmetic products; (8) other personal care products except: <ul style="list-style-type: none"> — spermicides; (9) co-formulants in pesticides and biocides.
<p>46a. Nonylphenol ethoxylates (NPE) $(C_2H_4O)_n C_{15}H_{24}O$</p>	<ol style="list-style-type: none"> 1. Shall not be placed on the market in textile articles which can reasonably be expected to be washed in water during their normal lifecycle, in concentrations equal to or greater than 0,01 % by weight of that textile article or of each part of the textile article. 2. Paragraph 1 shall not apply to the placing on the market of second-hand textile articles or of new textile articles produced, without the use of NPE, exclusively from recycled textiles. 3. For the purposes of paragraphs 1 and 2, 'textile article' means any unfinished, semi-finished or finished product which is composed of at least 80 % textile fibres by weight, or any other product that contains a part which is composed of at least 80 % textile fibres by weight, including products such as clothing, accessories, interior textiles, fibres, yarn, fabrics and knitted panels.
<p>47. Chromium VI compounds</p>	<ol style="list-style-type: none"> 1. Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0,0002 %) soluble chromium VI of the total dry weight of the cement. 2. If reducing agents are used, then without prejudice to the application of Bylaw on Classification, Labelling and Packaging of Substances and Mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1. 3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin. 4. The standard adopted by the European Committee for Standardization (CEN) for testing the water-soluble chromium (VI) content of cement and cement-containing mixtures shall be used as the test method for demonstrating conformity with paragraph 1. 5. Leather articles coming into contact with the skin shall not be placed on the market where they contain chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of the leather. 6. Articles containing leather parts coming into contact with the skin shall not be placed on the market where any of those leather parts contains chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of that leather part. 7. Paragraphs 5 and 6 shall not apply to the placing on the market of articles which were placed on the market before the publication date of this Bylaw.
<p>48. Toluene CAS No 108-88-3 EC No 203-625-9</p>	<p>Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.</p>



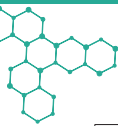
<p>49. Trichlorobenzene CAS No 120-82-1 EC No 204-428-0</p>	<p>1. Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight for any use except:</p> <ul style="list-style-type: none"> — as an intermediate of synthesis, or, — as a process solvent in closed chemical applications for chlorination reactions, or, — in the manufacture of 1,3,5-triamino — 2,4,6-trinitrobenzene (TATB).
<p>50. Polycyclic-aromatic hydrocarbons (PAH) (a) Benzo[a]pyrene (BaP) CAS No 50-32-8 (b) Benzo[e]pyrene (BeP) CAS No 192-97-2 (c) Benzo[a]anthracene (BaA) CAS No 56-55-3 (d) Chrysen (CHR) CAS No 218-01-9 (e) Benzo[b]fluoranthene (BbFA) CAS No 205-99-2 (f) Benzo[j]fluoranthene (BjFA) CAS No 205-82-3 (g) Benzo[k]fluoranthene (BkFA) CAS No 207-08-9 (h) Dibenzo[a,h]anthracene (DBaHA) CAS No 53-70-3</p>	<p>1. Extender oils shall not be placed on the market, or used for the production of tyres or parts of tyres if they contain:</p> <ul style="list-style-type: none"> — more than 1 mg/kg (0,0001 % by weight) BaP, or, — more than 10 mg/kg (0,001 % by weight) of the sum of all listed PAHs. <p>The standard EN 16143:2013 (Petroleum products — Determination of content of Benzo(a)pyrene (BaP) and selected polycyclic aromatic hydrocarbons (PAH) in extender oils — Procedure using double LC cleaning and GC/MS analysis) shall be used as the test method for demonstrating conformity with the limits referred to in the first subparagraph. The limits referred to in the first subparagraph may be regarded as kept, if the polycyclic aromatics (PCA) extract is less than 3 % by weight as measured by the Institute of Petroleum standard IP 346:1998 (Determination of PCA in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method), provided that compliance with the limits of BaP and of the listed PAHs, as well as the correlation of the measured values with the PCA extract, is measured by the manufacturer or importer every six months or after each major operational change, whichever is earlier.</p> <p>2. Furthermore, tyres and treads for retreading manufactured after the date of entry into force of this entry shall not be placed on the market if they contain extender oils exceeding the limits indicated in paragraph 1. These limits shall be regarded as kept, if the vulcanised rubber compounds do not exceed the limit of 0,35 % Bay protons as measured and calculated by ISO 21461 (Rubber vulcanised — Determination of aromaticity of oil in vulcanised rubber compounds).</p> <p>3. By way of derogation, paragraph 2 shall not apply to retreaded tyres if their tread does not contain extender oils exceeding the limits referred to in paragraph 1. 4. For the purpose of this entry 'tyres' shall mean tyres for vehicles covered by:</p> <ul style="list-style-type: none"> — Bylaw on Type Authorization of Motor Vehicles and Trailers published in the Official Gazette dated 28/06/2009 and numbered 27272 which establishes a framework for authorization of motor vehicles and trailers, — Bylaw on Type Authorization of Agricultural or Forestry Tractors and Their Trailers published in the Official Gazette dated 08/06/2008 and numbered 26900, and — Bylaw on Type Authorization of 2 or 3 Wheeled Motor Vehicles published in the Official Gazette dated 03/12/2004 and numbered 25679. <p>5. Articles shall not be placed on the market for supply to the general public, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 1 mg/kg (0,0001 % by weight of this component) of any of the listed PAHs. Such articles include amongst others:</p> <ul style="list-style-type: none"> — sport equipment such as bicycles, golf clubs, racquets — household utensils, trolleys, walking frames — tools for domestic use — clothing, footwear, gloves and sportswear — watch-straps, wrist-bands, masks, head-bands <p>6. Toys, including activity toys, and childcare articles, shall not be placed on the market, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 0,5 mg/kg (0,00005 % by weight of this component) of any of the listed PAHs.</p> <p>7. By way of derogation from paragraphs 5 and 6, these paragraphs shall not apply to articles placed on the market before the date of entry into force of this entry.</p>



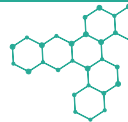
<p>51. The following phthalates (or other CAS and EC numbers covering the substance):</p> <p>(a) Bis (2-ethylhexyl) phthalate (DEHP) CAS No 117-81-7 EC No 204-211-0</p> <p>(b) Dibutyl phthalate (DBP) CAS No 84-74-2 EC No 201-557-4</p> <p>(c) Benzyl butyl phthalate (BBP) CAS No 85-68-7 EC No 201-622-7</p>	<p>1. Shall not be used as substances or in mixtures, in concentrations greater than 0,1 % by weight of the plasticized material, in toys and childcare articles. 2. Toys and childcare articles containing these phthalates in a concentration greater than 0,1 % by weight of the plasticized material shall not be placed on the market. 4. For the purpose of this entry 'childcare article' shall mean any product intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children.</p>
<p>52. The following phthalates (or other CAS- and EC numbers covering the substance):</p> <p>(a) Di-'isononyl' phthalate (DINP) CAS No 28553-12-0 and 68515-48-0 EC No 249-079-5 and 271-090-9</p> <p>(b) Di-'isodecyl' phthalate (DIDP) CAS No 26761-40-0 and 68515-49-1 EC No 247-977-1 and 271-091-4</p> <p>(c) Di-n-octyl phthalate (DNOP) CAS No 117-84-0 EC No 204-214-7</p>	<p>1. Shall not be used as substances or in mixtures, in concentrations greater than 0,1 % by weight of the plasticized material, in toys and childcare articles which can be placed in the mouth by children. 2. Such toys and childcare articles containing these phthalates in a concentration greater than 0,1 % by weight of the plasticized material shall not be placed on the market. 4. For the purpose of this entry 'childcare article' shall mean any product intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children.</p>
<p>54. 2-(2-methoxyethoxy)ethanol (DEGME) CAS No 111-77-3 EC No 203-906-6</p>	<p>Shall not be placed on the market, for supply to the general public, as a constituent of paints, paint strippers, cleaning agents, self-shining emulsions or floor sealants in concentrations equal to or greater than 0,1 % by weight.</p>
<p>55. 2-(2-butoxyethoxy)ethanol (DEGBE) CAS No 112-34-5 EC No 203-961-6</p>	<p>1. Shall not be placed on the market, for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight.</p> <p>2. Spray paints and spray cleaners in aerosol dispensers containing DEGBE and not conforming to paragraph 1 shall not be placed on the market for supply to the general public.</p>
<p>56. Methylenediphenyl diisocyanate (MDI) CAS No 26447-40-5 EC No 247-714-0 including the following specific isomers: (a) 4,4'-Methylenediphenyl diisocyanate: CAS No 101-68-8 EC No 202-966-0; (b) 2,4'-Methylenediphenyl diisocyanate: CAS No 5873-54-1 EC No 227-534-9; (c) 2,2'-Methylenediphenyl diisocyanate: CAS No 2536-05-2 EC No 219-799-4</p>	<p>1. Shall not be placed on the market, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging:</p> <p>(a) contains protective glove according to Bylaw on Personal Protection Equipment published in the Official Gazette dated 29/11/2006 and numbered 26361;</p> <p>(b) is marked visibly, legibly and indelibly as follows, and without prejudice to Bylaw on classification, packaging and labelling of substances and mixtures: '— Persons already sensitised to diisocyanates may develop allergic reactions when using this product. — Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. — This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.'</p> <p>2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.</p>
<p>57. Cyclohexane CAS No 110-82-7 EC No 203-806-2</p>	<p>1. Shall not be placed on the market, for supply to the general public, as a constituent of neoprene-based contact adhesives in concentrations equal to or greater than 0,1 % by weight in package sizes greater than 350 g.</p> <p>2. Neoprene-based contact adhesives containing cyclohexane and not conforming to paragraph 1 shall not be placed on the market for supply to the general public.</p> <p>3. Without prejudice to Bylaw on classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that neoprene-based contact adhesives containing cyclohexane in concentrations equal to or greater than 0,1 % by weight that are placed on the market for supply to the general public are visibly, legibly and indelibly marked as follows: '— This product is not to be used under conditions of poor ventilation. — This product is not to be used for carpet laying.'</p>



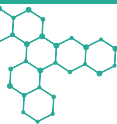
<p>58. Ammonium nitrate (AN) CAS No 6484-52-2 EC No 229-347-8</p>	<p>1. Shall not be placed on the market as a substance, or in mixtures that contain more than 28 % by weight of nitrogen in relation to ammonium nitrate, for use as a solid fertilizer, straight or compound, unless the fertilizer complies with the technical provisions for ammonium nitrate fertilizers of high nitrogen content set out in Bylaw on Chemical Fertilizers Used In Agriculture published in the Official Gazette dated 18/03/2004 and numbered 25452.</p> <p>2. Shall not be placed on the market as a substance, or in mixtures that contain 16 % or more by weight of nitrogen in relation to ammonium nitrate except for supply to:</p> <p>(a) downstream users and distributors, including natural or legal persons licensed or authorized in accordance with Bylaw on Licensing Placing on the Market and Inspection of Explosive Substances for Civil Use published in the Official Gazette dated 15/10/2002 and numbered 24907.</p> <p>(b) farmers for use in agricultural activities, either full time or part time and not necessarily related to the size of the land area.</p> <p>For the purposes of this subparagraph:</p> <p>(i) 'farmer' shall mean a natural or legal person, or a group of natural or legal persons, whatever legal status is granted to the group and its members by national law, whose holding is situated in Turkey who exercises an agricultural activity;</p> <p>(ii) 'agricultural activity' shall mean the production, rearing or growing of agricultural products including harvesting, milking, breeding animals and keeping animals for farming purposes, or maintaining the land in good agricultural and environmental condition ;</p> <p>(c) natural or legal persons engaged in professional activities such as horticulture, plant growing in greenhouses, maintenance of parks, gardens or sport pitches, forestry or other similar activities.</p>
<p>59. Dichloromethane CAS No 75-09-2 EC No 200-838-9</p>	<p>1. Paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall not be:</p> <p>(a) placed on the market for supply to the general public or to professionals after 31 December 2019;</p> <p>(b) used by professionals after 31 December 2021.</p>
<p>60. Acrylamide CAS No 79-06-1</p>	<p>Shall not be placed on the market or used as a substance or constituent of mixtures in a concentration, equal to or greater than 0,1 % by weight for grouting applications.</p>
<p>61. Dimethylfumarate (DMF) CAS No 624-49-7 EC No: 210-849-0</p>	<p>Shall not be used in articles or any parts thereof in concentrations greater than 0,1 mg/kg.</p> <p>Articles or any parts thereof containing DMF in concentrations greater than 0,1 mg/kg shall not be placed on the market.</p>
<p>62. (a) Phenylmercury acetate EC No: 200-532-5 CAS No: 62-38-4 (b) Phenylmercury propionate EC No: 203-094-3 CAS No: 103-27-5 (c) Phenylmercury 2-ethylhexanoate EC No: 236-326-7 CAS No: 13302-00-6 (d) Phenylmercury octanoate EC No: - CAS No: 13864-38-5 (e) Phenylmercury neodecanoate EC No: 247-783-7 CAS No: 26545-49-3</p>	<p>1. Shall not be manufactured, placed on the market or used as substances or in mixtures if the concentration of mercury in the mixtures is equal to or greater than 0,01 % by weight.</p> <p>2. Articles or any parts thereof containing one or more of these substances shall not be placed on the market if the concentration of mercury in the articles or any part thereof is equal to or greater than 0,01 % by weight.</p>



<p>63. Lead CAS No 7439-92-1 EC No 231-100-4 and its compounds</p>	<p>1. Shall not be placed on the market or used in any individual part of jewelry articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0,05 % by weight.</p> <p>2. For the purposes of paragraph 1: (a) 'jewelry articles' shall include jewelry and imitation jewelry articles and hair accessories, including: - bracelets, necklaces and rings; - piercing jewelry; - wrist watches and wrist-wear; - brooches and cufflinks; (b) 'any individual part' shall include the materials from which the jewelry is made, as well as the individual components of the jewelry articles.</p> <p>3. Paragraph 1 shall also apply to individual parts when placed on the market or used for jewelry making.</p> <p>4. By way of derogation, paragraph 1 shall not apply to:</p> <p>(a) crystal glass (category 1,2,3 and 4) as defined in Annex-1 of Bylaw on Crystal Glass Products published in the Official Gazette dated 19/03/2002 and numbered 24700;</p> <p>(b) internal components of watch timepieces inaccessible to consumers;</p> <p>(c) non-synthetic or reconstructed precious and semiprecious stones unless they have been treated with lead or its compounds or mixtures containing these substances;</p> <p>(ç) enamels, defined as vitrifiable mixtures resulting from the fusion, vitrification or sintering of minerals melted at a temperature of at least 500 °C.</p> <p>5. By way of derogation, paragraph 1 shall not apply to jewelry articles produced before 31 December 1970.</p> <p>6. Shall not be placed on the market or used in articles supplied to the general public, if the concentration of lead (expressed as metal) in those articles or accessible parts thereof is equal to or greater than 0,05 % by weight, and those articles or accessible parts thereof may, during normal or reasonably foreseeable conditions of use, be placed in the mouth by children.</p> <p>That limit shall not apply where it can be demonstrated that the rate of lead release from such an article or any such accessible part of an article, whether coated or uncoated, does not exceed 0,05 µg/cm² per hour (equivalent to 0,05 µg/g/h), and, for coated articles, that the coating is sufficient to ensure that this release rate is not exceeded for a period of at least two years of normal or reasonably foreseeable conditions of use of the article.</p> <p>For the purposes of this paragraph, it is considered that an article or accessible part of an article may be placed in the mouth by children if:</p> <ul style="list-style-type: none"> - it is smaller than 5 cm in one dimension or - has a detachable or protruding part of that size. <p>7. By way of derogation, paragraph 7 shall not apply to:</p> <p>(a) jewelry articles covered by paragraph 1;</p> <p>(b) crystal glass (category 1,2,3 and 4) as defined in Annex-1 of Bylaw on Crystal Glass Products published in the Official Gazette dated 19/03/2002 and numbered 24700;</p> <p>(c) non-synthetic or reconstructed precious and semi-precious stones (those who have GTIP code of 7103) unless they have been treated with lead or its compounds or mixtures containing these substances;</p> <p>(ç) enamels, defined as vitrifiable mixtures resulting from the fusion, vitrification or sintering of mineral melted at a temperature of at least 500 °C;</p> <p>(d) keys and locks, including padlocks;</p> <p>(e) musical instruments;</p> <p>(f) articles and parts of articles comprising brass alloys, if the concentration of lead (expressed as metal) in the brass alloy does not exceed 0,5 % by weight;</p> <p>(g) the tips of writing instruments;</p> <p>(ğ) religious articles;</p> <p>(h) portable zinc-carbon batteries and button cell batteries;</p> <p>(i) articles within the scope of Bylaw on Control of Packaging Waste published in the Official Gazette dated 24/08/2011 and numbered 28035, Bylaw on Turkish Food Codex Substances and Materials in Contact With Food published in the Official Gazette dated 29/11/2011 and numbered 28157, Bylaw on Control of Waste Electrical and Electronic Equipment published in the Official Gazette N°28300 dated 22/05/2012.</p> <p>By way of derogation paragraph 6 shall not apply to articles placed on the market for the first time before 31 December 2017.</p>
<p>64. 1,4-dichlorobenzene (p- dichlorobenzene) CAS No 106-46-7 EC No 203-400-5</p>	<p>Shall not be placed on the market or used, as a substance or as a constituent of mixtures in a concentration equal to or greater than 1 % by weight, where the substance or the mixture is placed on the market for use or used as an air freshener or deodoriser in toilets, homes, offices or other indoor public areas.</p>

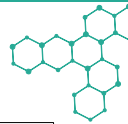


<p>65. Inorganic ammonium salts</p>	<p>1. Shall not be placed on the market, or used, in cellulose insulation mixtures or cellulose insulation articles unless the emission of ammonia from those mixtures or articles results in a concentration of less than 3 ppm by volume (2,12 mg/m³) under the test conditions specified in paragraph 4.</p> <p>A supplier of a cellulose insulation mixture containing inorganic ammonium salts shall inform the recipient or consumer of the maximum permissible loading rate of the cellulose insulation mixture, expressed in thickness and density.</p> <p>A downstream user of a cellulose insulation mixture containing inorganic ammonium salts shall ensure that the maximum permissible loading rate communicated by the supplier is not exceeded.</p> <p>2. By way of derogation, paragraph 1 shall not apply to placing on the market of cellulose insulation mixtures intended to be used solely for the production of cellulose insulation articles, or to the use of those mixtures in the production of cellulose insulation articles.</p> <p>3. Compliance with the emission limit specified in the first subparagraph of paragraph 1 shall be demonstrated in accordance with Technical Specification CEN/TS 16516, adapted as follows:</p> <p>(a) the duration of the test shall be at least 14 days instead of 28 days;</p> <p>(b) the ammonia gas emission shall be measured at least once per day throughout the test;</p> <p>(c) the emission limit shall not be reached or exceeded in any measurement taken during the test;</p> <p>(c) the relative humidity shall be 90 % instead of 50 %;</p> <p>(d) an appropriate method to measure the ammonia gas emission shall be used;</p> <p>(e) the loading rate, expressed in thickness and density, shall be recorded during the sampling of the cellulose insulation mixtures or articles to be tested.</p>
<p>66. Bisphenol A CAS No 80-05-7 EC No 201-245-8</p>	<p>Shall not be placed on the market in thermal paper in a concentration equal to or greater than 0,02 % by weight.</p>
<p>67. Cyanide Compounds</p> <p>(a) hydrogen cyanide, hydrocyanic acid EC No 200-821-6 CAS No 74-90-8</p> <p>(b) Hydrogen cyanide salts other than those defined in this entry</p> <p>(c) Calcium cyanide EC No 209-740-0 CAS No 592-01-8</p> <p>(c) Cadmium cyanide EC No 208-829-1 CAS No 542-83-6</p> <p>(d) Dicya dicyanide oxide; mercury (II) oxycyanide EC No 215-629-8 CAS No 1335-31-5</p> <p>(e) Sodium cyanide EC No 205-599-4 CAS No 143-33-9</p> <p>(f) Copper cyanide EC No 208-883-6 CAS no 544-92-3</p> <p>(g) Potassium cyanide EC No 205-792-3 CAS No 151-50-8</p> <p>(g) Zinc cyanide EC No 209-162-9 CAS No 557-21-1</p>	<p>1. These compounds cannot be placed on the market for public sale as substances and cannot be sold to the public on the internet or in any other electronic medium.</p> <p>2. Without prejudice to the provisions of the Regulation on the Classification, Labeling and Packaging of Substances and Mixtures published in the Official Gazette dated 11/12/2013 and repeated numbered 28848, the supplier shall be obliged to mark the packaging of such compounds in a clear, legible and indelible manner as follows: "For professional and industrial use only".</p> <p>3. One month after the effective date of this article, the provision indicated in paragraph 2 enters into force.</p> <p>4. The downstream users or distributors of these compounds are subject to the 'End User Declaration' in Annex-XI of Annex-17 of the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals published in the Official Gazette dated 23/6/2017 and repeated numbered 30105 and are obliged to give the submit said declaration to the manufacturer or importer. The manufacturer or importer of cyanide compounds submits the declarations to the Ministry by the end of March, June, September and December of each year.</p>

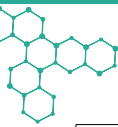


Annex-3. Solvents Used in Textile Industry

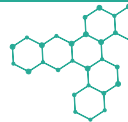
CAS No.	Chemical substance	Functional/Hazard Groups
108004-27-9		Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
1691-17-4	(difluoromethoxy)difluoromethane 1,1,3,3-TETRAFLUORODIMETHYL ETHER	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
3822-68-2	(difluoromethoxy)trifluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
	(methylenebis(4,1-phenyl-enazo(1-(3-(dimethylamino) propyl)-1,2-dihydro-6-hydroxy-4-methyl-2-oxopyridine-5,3-diy)))·1,1'-dipyridinium dichloride dihydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
623-25-6	?,''-dichloro-p-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
7398-82-5	?,?,?',?-tetrachloro-p-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
2136-89-2	?,?,?,2-tetrachlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, Tetra Chlorotoluenes
5216-25-1	?,?,?,4-tetrachlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, Tetra Chlorotoluenes, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility, H372: Causes damage to organs through prolonged or repeated exposure
3335-33-9	?,?,?-trichloro-o-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
81-19-6	?,?,?,6-tetrachlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, Tetra Chlorotoluenes
98-87-3	?,?,-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents, H331: Toxic if inhaled, H351: Suspected of causing cancer
611-19-8	?,2-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents
104-83-6	?,4-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents
620-19-9	?-chloro-m-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
552-45-4	?-chloro-o-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
104-82-5	?-chloro-p-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
72102-64-8	{2,5-bis[4-(dimethylamino) phenyl]-4-(ethylamino)-3-methylphenyl)methylum chloride Methylum, bis[4-(dimethylamino)phenyl] [4-(ethylamino)-3-methylphenyl]-, chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
40615-36-9	1,1'-(chlorophenyl(methylene) bis[4-methoxybenzene]	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents
375-17-7	1,1,2,2,3,3,4,4-nonafluorobutane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
422-78-6	1,1,2,2,3,3-heptachloro-3-fluoropropane Heptachlorofluoropropane CFC-211	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
662-00-0	1,1,2,2,3,3-Heptafluorobutane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)



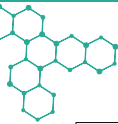
422-26-4	1,1,1,2,2,3-hexachloro-3-fluoropropane Hexachlorofluoropropane HCFC-221	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
677-56-5	1,1,1,2,2,3-hexafluoropropane HFC-236cb -CH2FCF2CF3	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-56-3	1,1,1,2,2-pentachloro-2-fluoroethane Pentachlorofluoroethane CFC-111	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
22410-44-2	1,1,1,2,2-pentafluoro-2-methoxyethane 1,1,1,2,2-Pentafluoro-2-methoxyethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1814-88-6	1,1,1,2,2-pentafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
22052-84-2	1,1,1,2,3,3,3-heptafluoro-2-methoxypropane DIFLUOROMETHYL 2,2,2-TRIFLUOROETHYL ETHER	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
431-89-0	1,1,1,2,3,3,3-heptafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
431-63-0	1,1,1,2,3,3-hexafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75995-72-1	1,1,1,2,3,4,4,4-octafluorobutane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
421-94-3	1,1,1,2,3-pentachloro-2-fluoropropane Pentachlorofluoropropane HCFC-231	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
431-31-2	1,1,1,2,3-pentafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
76-11-9	1,1,1,2-tetrachloro-2,2-difluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-11-0	1,1,1,2-tetrachloro-2-fluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
2356-62-9	1,1,1,2-tetrafluoro-2-(trifluoromethoxy)ethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
3182-26-1	1,1,1,3,3,3-hexachloro-2,2-difluoropropane Hexachlorodifluoropropane CFC-212	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
2354-06-5	1,1,1,3,3-pentachloro-2,2,3-trifluoropropane Pentachlorotrifluoropropane CFC-213	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
422-49-1	1,1,1,3,3-pentachloro-2,2-difluoropropane Pentachlorodifluoropropane HCFC-222	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
148875-98-3	1,1,1,3-tetrabromo-3,3-difluoropropane C3H2F2Br4 -HBFC-232 B4	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-89-9	1,1,1,3-tetrachloro-3,3-difluoropropane Tetrachlorodifluoropropane HCFC-232	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
4259-43-2	1,1,1-trichloro-2,2,3,3,3-pentafluoropropane 1,1,1-Trichloropentafluoropropane CFC-215	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
7125-84-0	1,1,1-trichloro-3,3,3-trifluoropropane Trichlorotrifluoropropane HCFC-233	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-43-5	1,1,1-trifluoro-2-methoxyethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
679-86-7	1,1,2,2,3-pentafluoropropane HFC-245ca -C3H3F5	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-14-3	1,1,2-tetrachloro-1-fluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)



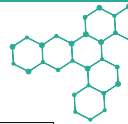
2356-61-8	1,1,2,2-tetrafluoro-1-(trifluoromethoxy)ethane Trifluoromethyl 1,1,2,2-tetrafluoroethyl ether	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
425-88-7	1,1,2,2-tetrafluoro-1-methoxyethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
359-35-3	1,1,2,2-tetrafluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
40723-63-5	1,1,2,2-tetrafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
24270-66-4	1,1,2,3,3-pentafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
666-27-3	1,1,2,3-tetrachloro-1-fluoropropane Tetrachlorofluoropropane HCFC-241	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
421-41-0	1,1,2-trichloro-1-fluoropropane Monochlorotetrafluoropropane HCFC-251	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
359-28-4	1,1,2-trichloro-2-fluoroethane Trichlorofluoroethane HCFC-131	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
430-66-0	1,1,2-trifluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
422-52-6	1,1,3,3-tetrachloro-1,2,2-trifluoropropane Tetrachlorotrifluoropropane HCFC-223	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1652-81-9	1,1,3-trichloro-1,2,2,3,3-pentafluoropropane	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
374-07-2	1,1-dichloro-1,2,2,2-tetrafluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
13474-88-9	1,1-dichloro-1,2,2,3,3-pentafluoropropane 1,1-DICHLORO-1,2,2,3,3-PENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
812-04-4	1,1-dichloro-1,2,2-trifluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
111512-56-2	1,1-dichloro-1,2,2,3,3-pentafluoropropane 1,1-DICHLORO-1,2,2,3,3-PENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
422-56-0	1,1-dichloro-2,2,3,3,3-pentafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-37-6	1,1-difluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
214353-17-0	1,1-Ethanediol, 1-(2-amino-5-chlorophenyl)-2,2,2-trifluoro-, hydrochloride (1:1)	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers
29255-31-0	1,2,2,3-tetrachloro-1,1,3,3-tetrafluoropropane Tetrachlorotetrafluoropropane CFC-214	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1599-41-3	1,2,2-trichloro-1,1,3,3,3-pentafluoropropane 1,2,2-Trichloropentafluoropropane CFC-215	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-21-2	1,2,2-trichloro-1,1-difluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
40186-72-9	1,2,3,4,5-pentachloro-6-(2,3,4,5-tetrachlorophenyl)benzene PCB 206 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-78-2	1,2,3,4,5-pentachloro-6-(2,3,4-trichlorophenyl)benzene PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



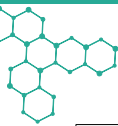
52663-76-0	1,2,3,4,5-pentachloro-6-(2,4,5-tri-chlorophenyl)benzene PCB 203 2,2',3,4,4',5,5',6-Octa- chlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
877-11-2	1,2,3,4,5-pentachloro-6-methylbenzene Pentachlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents
944-61-6	1,2,3,4-tetrachloro-5,6-dimethoxybenzene Benzene, 1,2,3,4-tetrachloro-5,6-dimethoxy-	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents
35694-08-7	1,2,3,4-tetrachloro-5-(2,3,4,5-tetrachlorophenyl)benzene PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-30-6	1,2,3,4-tetrachloro-5-(2,3,4-trichlorophenyl)benzene PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-74-8	1,2,3,4-tetrachloro-5-(2,3,5-trichlorophenyl)benzene PCB 172 2,2',3,3',4,4',5,5'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-29-3	1,2,3,4-tetrachloro-5-(2,4,5-trichlorophenyl)benzene PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
39635-31-9	1,2,3,4-tetrachloro-5-(3,4,5-trichlorophenyl)benzene PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-08-4	1,2,3,4-tetrachloro-5-(3,4-dichlorophenyl)benzene PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
74472-37-0	1,2,3,4-tetrachloro-5-(4-chlorophenyl)benzene PCB 114 2,3,4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
634-66-2	1,2,3,4-tetrachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
42740-50-1	1,2,3,5-tetrachloro-4-(2,3,4,5-tetrachlorophenyl)benzene PCB 196 2,2',3,3',4,4',5,6'-Octa- chlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
74472-42-7	1,2,3,5-tetrachloro-4-(3,4-dichlorophenyl)benzene PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
634-90-2	1,2,3,5-tetrachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents, Tetrachlorobenzenes
666-48-8	1,2,3-tribromo-1,1,3,3-tetrafluoropropane C3HF4Br3 -HBFC-224 B3	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75372-14-4	1,2,3-tribromo-1-fluoropropane C3H4FBr3 -HBFC-251 B1	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
38380-07-3	1,2,3-trichloro-4-(2,3,4-trichlorophenyl)benzene PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-02-8	1,2,3-trichloro-4-(2,5-dichlorophenyl)benzene PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32598-14-4	1,2,3-trichloro-4-(3,4-dichlorophenyl)benzene PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
69782-90-7	1,2,3-trichloro-5-(2,3,4-trichlorophenyl)benzene PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers
52663-72-6	1,2,3-trichloro-5-(2,4,5-trichlorophenyl)benzene PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



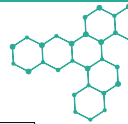
65510-44-3	1,2,3-trichloro-5-(2,4-dichlorophenyl)benzene PCB 123 2',3,4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32774-16-6	1,2,3-trichloro-5-(3,4,5-trichlorophenyl)benzene PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
57465-28-8	1,2,3-trichloro-5-(3,4-dichlorophenyl)benzene PCB 126 3,3',4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers
70362-50-4	1,2,3-trichloro-5-(4-chlorophenyl)benzene PCB 81 3,4,4',5-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
87-61-6	1,2,3-trichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
526-73-8	1,2,3-trimethylbenzene	Aromatic compounds, Solvents, Volatile organic compounds (VOC)
52663-75-9	1,2,4,5-tetrachloro-3-(2,3,4,5-tetrachlorophenyl)benzene PCB 199 2,2',3,3',4,5,5',6-Octachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-70-4	1,2,4,5-tetrachloro-3-(2,3,4-trichlorophenyl)benzene PCB 177 2,2',3,3',4,5,6'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-67-9	1,2,4,5-tetrachloro-3-(2,3,5-trichlorophenyl)benzene PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-68-0	1,2,4,5-tetrachloro-3-(2,4,5-trichlorophenyl)benzene PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-63-5	1,2,4,5-tetrachloro-3-(2,5-dichlorophenyl)benzene PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
95-94-3	1,2,4,5-tetrachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
38380-03-9	1,2,4-trichloro-3-(3,4-dichlorophenyl)benzene PCB 110 2,3,3',4',6-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-28-2	1,2,4-trichloro-5-(2,3,4-trichlorophenyl)benzene PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
51908-16-8	1,2,4-trichloro-5-(2,3,5-trichlorophenyl)benzene PCB 146, 2,2',3,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-04-0	1,2,4-trichloro-5-(2,3,6-trichlorophenyl)benzene PCB 149 2,2',3,4',5,6'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-27-1	1,2,4-trichloro-5-(2,4,5-trichlorophenyl)benzene PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-01-7	1,2,4-trichloro-5-(2,4-dichlorophenyl)benzene PCB 99 2,2',4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
37680-73-2	1,2,4-trichloro-5-(2,5-dichlorophenyl)benzene PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
31508-00-6	1,2,4-trichloro-5-(3,4-dichlorophenyl)benzene PCB 118 2,3',4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32690-93-0	1,2,4-trichloro-5-(4-chlorophenyl)benzene PCB 74 2,4,4',5-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



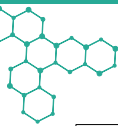
120-82-1	1,2,4-trichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
95-63-6	1,2,4-trimethylbenzene	Aromatic compounds, Solvents, Volatile organic compounds (VOC), H411: Toxic to aquatic life with long-lasting effects
354-04-1	1,2-dibromo-1,1,2-trifluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
431-78-7	1,2-dibromo-1,1,3,3,3-pentafluoropropane C3HF5Br2 -HBFC-225 B2	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-82-1	1,2-dibromo-1,1-difluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
358-97-4	1,2-dibromo-1-fluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
453-00-9	1,2-dibromo-3-fluoropropane C3H5FBr2 -HBFC-261 B2	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
124-73-2	1,2-dibromotetrafluoroethane	Brominated flame retardants, Flame retardants, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
661-97-2	1,2-dichloro-1,1,2,3,3,3-hexafluoropropane	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
422-44-6	1,2-dichloro-1,1,2,3,3-pentafluoropropane 1,2-DICHLORO-1,1,2,3,3-PENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-23-4	1,2-dichloro-1,1,2-trifluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
431-86-7	1,2-dichloro-1,1,3,3,3-pentafluoropropane 1,2-DICHLORO-1,1,3,3,3-PENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1649-08-7	1,2-dichloro-1,1-difluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
425-94-5	1,2-dichloro-1,2,3,3-tetrafluoropropane Dichlorotetrafluoropropane HCFC-234	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
430-57-9	1,2-dichloro-1-fluoroethane HCFC-141 (1717-00-6)	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
420-97-3	1,2-dichloro-2-fluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
41464-39-5	1,2-dichloro-3-(2,5-dichlorophenyl) benzene PCB 44 2,2',3,5'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32598-10-0	1,2-dichloro-4-(2,4-dichlorophenyl) benzene PCB 66 2,3',4,4'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32598-13-3	1,2-dichloro-4-(3,4-dichlorophenyl) benzene PCB 77 3,3',4,4'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
13014-24-9	1,2-dichloro-4-(trichloromethyl) benzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents
95-50-1	1,2-dichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes
624-72-6	1,2-difluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
422-54-8	1,3,3-trichloro-1,1,2,2-tetrafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-63-9	1,3,3-trichloro-1,1-difluoropropane Trichlorodifluoropropane HCFC-242	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
108-70-3	1,3,5-trichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
460-86-6	1,3-dibromo-1,1,3,3-tetrafluoropropane C3H2F4Br2 -HBFC-234 B2	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)



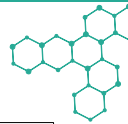
460-60-6	1,3-dibromo-1,1,3-trifluoropropane C3H3F3Br2 -HBFC-243 B2	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
507-55-1	1,3-dichloro-1,1,2,2,3-pentafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
136013-79-1	1,3-dichloro-1,1,2,3,3-pentafluoropropane 1,3-DICHLORO-1,1,2,3,3-PENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
819-00-1	1,3-dichloro-1,1-difluoropropane Dichlorodifluoropropane HCFC-252	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
541-73-1	1,3-dichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes
41464-40-8	1,4-dichloro-2-(2,4-dichlorophenyl)benzene PCB 49 2,2',4,5'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35693-99-3	1,4-dichloro-2-(2,5-dichlorophenyl)benzene PCB 52 2,2',5,5'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
37680-65-2	1,4-dichloro-2-(2-chlorophenyl)benzene PCB 18 2,2',5-Trichlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
106-46-7	1,4-dichlorobenzene	Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
69948-24-9	1-(difluoromethoxy)-1,1,2-trifluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
2814-77-9	1-[(2-chloro-4-nitrophenyl)azo]-2-naphthol	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
6410-13-5	1-[(4-chloro-2-nitrophenyl)azo]-2-naphthol	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
60207-90-1	1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
59709-10-3	1-[2-[[4-[(2-chloro-4-nitrophenyl)azo]phenyl]ethylamino]ethyl]pyridinium acetate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
69695-75-6	1-amino-4-[[3-[(dimethylamino)methyl]phenyl]amino]anthraquinone, monohydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
460-88-8	1-bromo-1,1,3,3,3-pentafluoropropane C3H2F5Br -HBFC-235 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
762-49-2	1-bromo-2-fluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1871-72-3	1-bromo-2-fluoropropane C3H6FBr -HBFC-271 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
90729-40-1	1-butyl-5-[[4-(4-chlorobenzo-yl)-2-nitrophenyl]azo]-1,2-dihydro-6-hydroxy-4-methyl-2-oxonicotinonitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
422-86-6	1-chloro-1,1,2,2,3,3,3-heptafluoropropane	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-25-6	1-chloro-1,1,2,2-tetrafluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
359-58-0	1-chloro-1,1,2,3,3,3-hexafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-92-4	1-chloro-1,1,3,3,3-pentafluoropropane Monochloropentafluoropropane HCFC-235	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-68-3	1-chloro-1,1-difluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)



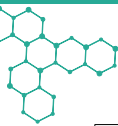
2837-89-0	1-chloro-1,2,2,2-tetrafluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1615-75-4	1-chloro-1-fluoroethane HCFC-151 (110587-14-9)	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
430-55-7	1-chloro-1-fluoropropane Monochlorofluoropropane HCFC-271	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
100-00-5	1-chloro-4-nitrobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
7005-72-3	1-chloro-4-phenoxybenzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
2687-91-4	1-ethylpyrrolidin-2-one	Solvents, Volatile organic compounds (VOC)
872-50-4	1-methyl-2-pyrrolidone	Solvents, Volatile organic compounds (VOC), H360: May damage the unborn child or fertility
114910-04-2	1-Naphthalenediazonium, 4-[[4-[(4-nitro-2-sulphophenyl) amino]phenyl]azo]-6-sulfo-, chloride, reaction products with formaldehyde and salicylic acid, ammonium sodium salts	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
135319-73-2	1H-1,2,4-Triazole, 1-[[3-(2-chlorophenyl)-2-(4-fluorophenyl)-2-oxiranyl]methyl]-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
107534-96-3	1H-1,2,4-Triazole-1-ethanol, ?-[2-(4-chlorophenyl)ethyl]-?-(1,1-dimethylethyl)-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents, H361: Suspected of damaging the unborn child or fertility, H411: Toxic to aquatic life with long-lasting effects
103112-35-2	1H-1,2,4-Triazole-3-carboxylic acid, 1-(2,4-dichlorophenyl)-5-(trichloromethyl)-, ethyl ester	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
2437-79-8	2,2',4,4'-tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers
5468-75-7	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)] bis[N-(2-methylphenyl)-3-oxobutamide]	Aromatic compounds, Benzidine and its salts, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Isocyanates, Solvents
17464-91-4	2,2'-[[4-[(2-bromo-6-chloro-4-nitrophenyl)azo]-3-chlorophenyl]imino] bisethanol	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Brominated flame retardants, Flame retardants, Solvents
789-02-6	2,2,2,0,p'-pentachloroethylidenebisbenzene	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides
3424-82-6	2,2,0,p'-tetrachlorovinylidenebisbenzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Pesticides
72-55-9	2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Pesticides
128903-21-9	2,2-dichloro-1,1,1,3,3-pentafluoropropane 2,2-DICHLORO-1,1,1,3,3-PENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
306-83-2	2,2-dichloro-1,1,1-trifluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
34077-87-7	2,2-dichloro-1,1,1-trifluoroethane DICHLOROTRIFLUOROETHANE	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
4901-51-3	2,3,4,5-tetrachlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, Tetrachlorophenol (TeCP), salts and compounds
1006-32-2	2,3,4,5-Tetrachlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Tetra Chlorotoluenes



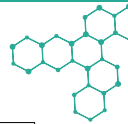
58-90-2	2,3,4,6-tetrachlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, Tetrachlorophenol (TeCP), salts and compounds, H301: Toxic if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
15950-66-0	2,3,4-trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
877-10-1	2,3,5,6-tetrachloro-p-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
935-95-5	2,3,5,6-tetrachlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, Tetrachlorophenol (TeCP), salts and compounds
875-40-1	2,3,5,6-Tetrachlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Tetra Chlorotoluenes
933-78-8	2,3,5-trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
933-75-5	2,3,6-trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
2077-46-5	2,3,6-trichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, TriChlorotoluenes
422-48-0	2,3-dichloro-1,1,2,3-pentafluoropropane 2,3-DICHLORO-1,1,2,3-PENTA-FLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
576-24-9	2,3-dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
32768-54-0	2,3-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents
7012-37-5	2,4,4'-trichlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
95-95-4	2,4,5-trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
6639-30-1	2,4,5-trichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, TriChlorotoluenes
21436-97-5	2,4,5-trimethylanilinium chloride 2,4,5-trimethylaniline hydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
88-06-2	2,4,6-trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
118-96-7	2,4,6-trinitrotoluene	Aromatic compounds, Chlorotoluenes, Solvents, TriChlorotoluenes, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H373: May cause damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
134-25-8	2,4-dichloro-1-(dichloromethyl) benzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, Tetra Chlorotoluenes
120-83-2	2,4-dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H311: Toxic in contact with skin
95-73-8	2,4-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents
583-78-8	2,5-dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
19398-61-9	2,5-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents



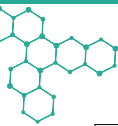
2014-83-7	2,6-dichlorobenzyl chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, TriChlorotoluenes
87-65-0	2,6-dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
118-69-4	2,6-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents
78952-70-2	2-(2-{2-chloro-4-[3-chloro-4-(2-{1-[[2-chlorophenyl]carbamoyl]-2-oxopropyl}diaz-en-1-yl)phenyl]phenyl}diaz-en-1-yl)-N-(2,4-dimethylphenyl)-3-oxobutanamide Butanamide, 2-[[[3,3'-dichloro-4'-[[1-[[[2-chlorophenyl]amino]carbonyl]-2-oxopropyl]azo][1,1'-biphenyl]-4-yl]azo]-N-(2,4-dimethylphenyl)-3-oxo-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
19387-83-8	2-(chloromethyl)-5-(1,1-dimethylethyl)-m-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
57041-67-5	2-(difluoromethoxy)-1,1,1,2-tetrafluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1885-48-9	2-(difluoromethoxy)-1,1,1-trifluoroethane DIFLUOROMETHYL 2,2,2-TRIFLUOROETHYL ETHER	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
33979-43-0	2-[[[2-cyanoethyl]({4-[2-(5,6-dichloro-1,3-benzothiazol-2-yl)diaz-en-1-yl]phenyl})amino]ethyl acetate Propanenitrile, 3-[[[2-(acetoxy)ethyl][4-[[5,6-dichloro-2-benzothiazolyl]azo]phenyl]amino]-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
127126-02-7	2-[[[2-cyanoethyl]({4-[2-(6,7-dichloro-1,3-benzothiazol-2-yl)diaz-en-1-yl]phenyl})amino]ethyl acetate Propanenitrile, 3-[[[2-(acetoxy)ethyl][4-[[6,7-dichloro-2-benzothiazolyl]azo]phenyl]amino]-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
6232-56-0	2-[[[4-(2,6-dichloro-4-nitrophenyl)azo]phenyl]methylamino]ethanol	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
16421-40-2	2-[[[5-acetamide-4-[(2-chloro-4,6-dinitrophenyl)azo]-2-methoxyphenyl]benzylamino]ethyl acetate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
	2-[2-hydroxy-3-(2-chlorophenyl)carbamoyl-1-naphthylazo]-7-[2-hydroxy-3-(3-methylphenyl)carbamoyl-1-naphthylazo]fluoren-9-one	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
101200-53-7	2-[3-(3-chlorophenyl)propyl]pyridine Pyridine, 2-[3-(3-chlorophenyl)propyl]-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
68516-64-3	2-[4-[(2-chloro-4-nitrophenyl)azo]-N-(2-cyanoethyl)-3-methylanilino]ethyl acetate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
59583-77-6	2-[butyl[4-(2,2-dicyanovinyl)-3-methylphenyl]amino]ethyl (3,4-dichlorophenyl)carbamate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
26850-12-4	2-[N-(2-acetoxyethyl)-4-chloro-2-nitro-5-[2-(propionamido)anilino]anilino]ethyl acetate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
5261-31-4	2-[N-(2-cyanoethyl)-4-[(2,6-dichloro-4-nitrophenyl)azo]anilino]ethyl acetate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents



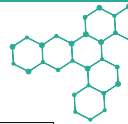
2252-79-1	2-bromo-1,1,1,3,3,3-hexafluoropropane C3HF6Br -HBFC-226 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
421-06-7	2-bromo-1,1,1-trifluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
359-07-9	2-bromo-1,1-difluoroethane C2H3F-2Br -HBFC-142 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
134190-50-4	2-chloro-1,1,2-tetrafluoropropane Monochlorotetrafluoropropane HCFC-244	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
431-87-8	2-chloro-1,1,1,3,3,3-hexafluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
5538-41-0	2-chloro-3,5-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
95-72-7	2-chloro-p-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
824-45-3	2-chloromethyl-p-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
91-58-7	2-chloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
95-57-8	2-chlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H411: Toxic to aquatic life with long-lasting effects
95-49-8	2-chlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, MonoChlorotoluenes, Solvents
110-80-5	2-ethoxyethanol	Glycol ethers, Solvents, H331: Toxic if inhaled, H360: May damage the unborn child or fertility
68214-66-4	2-ethoxyethyl [2-[(2-chloro-4-nitrophenyl)azo]-5-(diethylamino)phenyl]carbamate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
111-15-9	2-ethoxyethyl acetate	Glycol ethers, Solvents, Volatile organic compounds (VOC), H360: May damage the unborn child or fertility
617-94-7	2-phenylpropan-2-ol	Aromatic compounds, Solvents, Volatile organic compounds (VOC)
1154-59-2	3,3',4',5'-tetrachlorosalicylanilide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
1871-22-3	3,3'-(3,3'-dimethoxy-4,4'-biphenylene)bis(2,5-diphenyl-2H-tetrazolium) chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
91-94-1	3,3'-dichlorobenzidine	Aromatic compounds, Aryl-amines from Azo dyes, Benzidine and its salts, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes, Dyes and pigments, Solvents, H317: May cause allergic skin reaction, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
460-69-5	3,3-dichloro-1,1,1-trifluoropropane Dichlorotrifluoropropane HCFC-243	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
609-19-8	3,4,5-trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
95-76-1	3,4-dichloroaniline	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
95-77-2	3,4-dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
95-75-0	3,4-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents



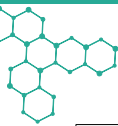
591-35-5	3,5-dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
25186-47-4	3,5-dichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, DiChlorotoluenes, Solvents
13301-61-6	3-[[4-[[2,6-dichloro-4-nitrophenyl]azo]phenyl]ethylamino]propionitrile	Allergizing disperse dyes, Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments
25176-89-0	3-[[4-[[5,6-dichlorobenzothiazol-2-yl]azo]phenyl]ethylamino]propionitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
41362-82-7	3-[[4-[[5,6-dichlorobenzothiazol-2-yl]azo]phenyl]methylamino]propionitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
25150-28-1	3-[[4-[[6,7-dichlorobenzothiazol-2-yl]azo]phenyl]ethylamino]propionitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
460-67-3	3-bromo-1,1,1,3-tetrafluoropropane C3H3F4Br -HBFC-244 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-32-2	3-bromo-1,1,1-trifluoropropane C3H-4F3Br -HBFC-253 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
461-49-4	3-bromo-1,1-difluoropropane C3H-5F2BrHBFC-262 B1	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-35-5	3-chloro-1,1,1-trifluoropropane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
108-43-0	3-chlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H411: Toxic to aquatic life with long-lasting effects
108-41-8	3-chlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, MonoChlorotoluenes, Solvents, H411: Toxic to aquatic life with long-lasting effects
23077-61-4	4'-chloro-2-hydroxycarbazole-1-carboxanilide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
92-76-2	4'-chloro-3-hydroxy-2'-methyl-2-naphthanilide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
3520-72-7	4,4'-[[3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl]bis(azo)]bis[2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one]	Aromatic compounds, Benzidine and its salts, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Isocyanates, Solvents
101-14-4	4,4'-methylenebis[2-chloroaniline]	Aromatic compounds, Aryl-amines from Azo dyes, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
13552-44-8	4,4'-methylenedianilinium dichloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents
73398-86-4	4-(3-chloro-5-propylphenyl)pyridine Pyridine, 4-(3-chloro-5-propylphenyl)-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
28434-86-8	4-(4-amino-3-chlorophenoxy)-2-chloroaniline 3,3'-Dichloro-4,4'-diamino-diphenyl ether	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
73398-87-5	4-(4-chloro-3-propylphenyl)pyridine Pyridine, 4-(4-chloro-3-propylphenyl)-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
72927-94-7	4-[[2,6-dichloro-4-nitrophenyl]azo]-N-(4-nitrophenyl)aniline	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
31030-27-0	4-[[2-chloro-4-nitrophenyl]azo]-N-ethyl-N-(2-phenoxyethyl)aniline	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents



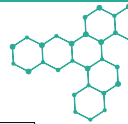
6407-74-5	4-[(2-chlorophenyl)azo]-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
106246-33-7	4-[(4-amino-2-chloro-3,5-diethylphenyl)methyl]-3-chloro-2,6-diethylaniline 4,4'-Methylene bis(3-chloro-2,6-di-ethylphenylisocyanate) [LONZACURE M-CDEA-I]	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
59487-23-9	4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxynaphthalene-2-carboxamide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
58161-93-6	4-[1-[[[2,4-dichlorophenyl]amino]carbonyl]-3,3-dimethyl-2-oxobutoxy]benzoic acid	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
1570-64-5	4-chloro-o-cresol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlorocresol, Chlororganic carriers, Solvents, H331: Toxic if inhaled, H400: Very toxic to aquatic life
95-83-0	4-chloro-o-phenylenediamine	Aromatic compounds, Chlorinated aromatics, Chlorinated aromatics, Chlororganic carriers, Phenylenediamines, Solvents
106-47-8	4-chloroaniline	Aromatic compounds, Aryl-amines from Azo dyes, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
20265-96-7	4-chloroanilinium chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents
106-48-9	4-chlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H411: Toxic to aquatic life with long-lasting effects
104-12-1	4-chlorophenyl isocyanate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Isocyanates, Solvents, H330: Fatal if inhaled, H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
106-43-4	4-chlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, MonoChlorotoluenes, Solvents, H411: Toxic to aquatic life with long-lasting effects
17700-09-3	4-nitro-1,2,3-trichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents
92-72-8	5'-chloro-3-hydroxy-2',4'-dimethoxy-2-naphthanilide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
135-63-7	5'-chloro-3-hydroxy-2'-methyl-2-naphthanilide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
63281-10-7	5-[[2-chloro-4-(methylsulfonyl)phenyl]azo]-4-methyl-2,6-bis[[3-(2-phenoxyethoxy)propyl]amino]nicotinonitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
85392-21-8	5-[[2-chloro-4-(phenylazo)phenyl]azo]-2,6-bis[(3-methoxypropyl)amino]-4-methylnicotinonitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
73528-78-6	5-[[4-[(2,6-dichloro-4-nitrophenyl)azo]-2,5-dimethoxyphenyl]azo]-2,6-bis[(2-methoxyethyl)amino]-4-methylnicotinonitrile	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
63133-84-6	6-[(2-chloro-4,6-dinitrophenyl)azo]-3,4-dihydro-2,2,4,7-tetramethyl-2H-quinoline-1-ethanol	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents



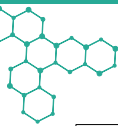
	A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato) (1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-)	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chromium compounds, Dyes and pigments, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
67-64-1	acetone	Solvents, Volatile organic compounds (VOC)
98-86-2	acetophenone	Solvents, Volatile organic compounds (VOC)
1079-17-0	alpha,alpha',2,3,5,6-hexachloro-4-xylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chloroxylenes, Solvents
142-04-1	anilinium chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents
71-43-2	benzene	Aromatic compounds, Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H340: May cause genetic defects, H350: May cause cancer, H372: Causes damage to organs through prolonged or repeated exposure
624-18-0	benzene-1,4-diamine dihydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Phenylenediamines, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
106276-78-2	Benzoic acid, 2,3,4,5-tetrachloro-6-cyano-, methyl ester, reaction products with 4-[2-(4-aminophenyl)diazenyl]-3-methylbenzenamine and methanol sodium salt (1:1)	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
90-43-7	biphenyl-2-ol	Aromatic compounds, Solvents, H400: Very toxic to aquatic life
111-96-6	bis(2-methoxyethyl) ether	Glycol ethers, Solvents, Volatile organic compounds (VOC), H360: May damage the unborn child or fertility
14047-09-7	bis(3,4-dichlorophenyl)diazene 3,3',4,4'-Tetrachloroazobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers
72812-39-6	bis(4-amino-3,5-dimethylphenyl) (2,6-dichlorophenyl)methylum dihydrogen phosphate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
353-59-3	bromochlorodifluoromethane	Chlorinated ethanes, Brominated flame retardants, Flame retardants, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1511-62-2	bromodifluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-63-8	bromotrifluoromethane	Brominated flame retardants, Flame retardants, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
406-58-6	Butane, 1,1,1,3,3-pentafluoro-	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
110-63-4	butane-1,4-diol	Solvents
78-93-3	butanone	Solvents, Volatile organic compounds (VOC)
18991-98-5	butyl bromoacetate	Brominated flame retardants, Flame retardants, Solvents, Volatile organic compounds (VOC)
431-48-1	C3H2F3Br3 -HBFC-233 B3	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
666-25-1	C3H3F2Br3 -HBFC-242 B3	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
51584-25-9	C3H4F2Br2HBFC-252 B2	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-15-0	carbon disulphide	Solvents, Volatile organic compounds (VOC), H361: Suspected of damaging the unborn child or fertility, H372: Causes damage to organs through prolonged or repeated exposure



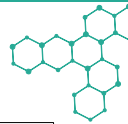
56-23-5	carbon tetrachloride	Chloroalkanes, Ozone thinning agents (CFCs), Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H412: Harmful to aquatic life with long-lasting effects, H420: Harms public health and the environment by destroying ozone in the upper atmosphere
75-73-0	carbon tetrafluoride	Ozone thinning agents (CFCs), Perfluorocarbons (PFCs), Solvents, Volatile organic compounds (VOC)
	CFP	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers
75-88-7	chloro-1,1,1-trifluoroethane	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
108-90-7	chlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents
59-50-7	chlorocresol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlorocresol, Chlororganic carriers, Solvents, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H400: Very toxic to aquatic life
75-45-6	chlorodifluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
593-70-4	chlorofluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
67-66-3	chloroform	Chloroalkanes, Solvents, Volatile organic compounds (VOC), H351: Suspected of causing cancer, H373: May cause damage to organs through prolonged or repeated exposure
25586-43-0	chloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
76-15-3	chloropentafluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
63938-10-3	chlorotetrafluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
25168-05-2	chlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, MonoChlorotoluenes, Solvents, H411: Toxic to aquatic life with long-lasting effects
100-44-7	chlorotoluene Benzyl-chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, H331: Toxic if inhaled, H350: May cause cancer, H373: May cause damage to organs through prolonged or repeated exposure
75-72-9	chlorotrifluoromethane	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
50-29-3	clofenotane	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides, H301: Toxic if swallowed, H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
76-14-2	cryofluorane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
110-82-7	cyclohexane	Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
108-94-1	cyclohexanone	Solvents, Volatile organic compounds (VOC)
2051-24-3	decachloro-1,1'-biphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
355-25-9	decafluorobutane	Ozone thinning agents (CFCs), Perfluorocarbons (PFCs), Solvents, Volatile organic compounds (VOC)



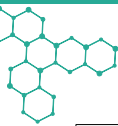
90454-18-5	DICHLORO-1,1,2-TRIFLUOROETHANE	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
76253-60-6	dichloro[(dichlorophenyl)methyl]methylbenzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Halogenated diarylalkanes, Solvents, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
25321-22-6	dichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes, Solvents
81161-70-8	Dichlorobenzyltoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Halogenated diarylalkanes, Solvents
75-71-8	dichlorodifluoromethane	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-43-4	dichlorofluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-09-2	dichloromethane	Chloroalkanes, Solvents, Volatile organic compounds (VOC), H351: Suspected of causing cancer
29797-40-8	dichloromethylbenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes, Solvents
28699-88-9	dichloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
127564-92-5	DICHLOROPENTAFLUOROPROPANE	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
25167-81-1	dichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
75-10-5	difluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
67-68-5	dimethyl sulfoxide	Solvents, Volatile organic compounds (VOC)
83027-52-5	disodium 6-[[[2-(2-cyclohexylphenoxy)phenyl]azo]-4-[[[2,4-dichlorophenoxy]acetyl]amino]-5-hydroxynaphthalene-1,7-disulphonate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
83027-51-4	disodium 6-[[[2-(4-cyclohexylphenoxy)phenyl]azo]-4-[[[2,4-dichlorophenoxy]acetyl]amino]-5-hydroxynaphthalene-1,7-disulphonate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
678-26-2	dodecafluoropentane	Ozone thinning agents (CFCs), Perfluorocarbons (PFCs), Solvents, Volatile organic compounds (VOC)
1717-00-6	Ethane, 1,1-dichloro-1-fluoro-	Chlorinated ethanes, Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC), H412: Harmful to aquatic life with long-lasting effects, H420: Harms public health and the environment by destroying ozone in the upper atmosphere
	ethyl 1-(2,4-dichlorophenyl)-5-trichloromethyl-1,2,4-(1H)-tri-azol-3-carboxylate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
105-36-2	ethyl bromoacetate	Solvents, Volatile organic compounds (VOC), H300: Fatal if swallowed, H310: Fatal in contact with skin, H330: Fatal if inhaled
100-41-4	ethylbenzene	Aromatic compounds, Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H373: May cause damage to organs through prolonged or repeated exposure
639-58-7	fentin chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Organic tin compounds, Tri-substituted organotin compounds, Triphenyltin compounds
353-36-6	fluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)



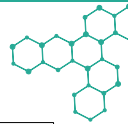
593-53-3	fluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-12-7	formamide	Solvents, Volatile organic compounds (VOC), H360: May damage the unborn child or fertility
8006-61-9	Gasoline, natural	Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H340: May cause genetic defects, H350: May cause cancer
353-93-5	HBFC-121 B4 Tetrabromofluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
353-97-9	HBFC-122 B3 1,1,2-TRIBROMO-1,2-DIFLUOROETHANE	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
354-07-4	HBFC-124 B1 1-bromo-1,1,2,2-tetrafluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
172912-75-3	HBFC-131 B3, Tribromofluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1868-53-7	HBFC-21 B2 Dibromofluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
32241-08-0	heptachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
118-74-1	hexachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Pesticides, Solvents, H350: May cause cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
67-72-1	hexachloroethane	Chlorinated ethanes, Solvents, Volatile organic compounds (VOC)
1335-87-1	hexachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
684-16-2	hexafluoroacetone	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
420-46-2	HFC-143a 1,1,1-trifluoroethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
65277-42-1	ketoconazole	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents, H301: Toxic if swallowed, H360: May damage the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
8032-32-4	Ligroine	Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H340: May cause genetic defects, H350: May cause cancer
108-38-3	m-xylene	Aromatic compounds, Solvents, Volatile organic compounds (VOC)
71832-83-2	magnesium 4-[[[5-chloro-4-methyl-2-sulphonatophenyl]azo]-3-hydroxy-2-naphthoate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
108-67-8	mesitylene	Aromatic compounds, Solvents, Volatile organic compounds (VOC), H411: Toxic to aquatic life with long-lasting effects
373-52-4	Methane, bromofluoro-	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
73003-64-2	methyl 7-[4-[[[2,6-dichloro-4-nitrophenyl]azo]-3-oxo-m-tolyl]-2,4,10-trioxo-7-azaundecan-11-oate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
96-32-2	methyl bromoacetate	Brominated flame retardants, Flame retardants, Solvents, Volatile organic compounds (VOC)
59709-38-5	methyl N-[4-[[[2-bromo-6-chloro-4-nitrophenyl]azo]phenyl]-N-(3-methoxy-3-oxopropyl)-?-alaninate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Brominated flame retardants, Flame retardants, Solvents



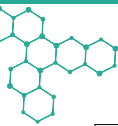
72102-56-8	Methylium, [4-(dimethylamino)phenyl] bis[4-(ethylamino)-3-methylphenyl]-, chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
53-19-0	mitotane	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides
421-02-3	Monochlorodifluoropropane HCFC-262	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
127-19-5	N,N-dimethylacetamide	Solvents, Volatile organic compounds (VOC), H360: May damage the unborn child or fertility
68-12-2	N,N-dimethylformamide	Solvents, Volatile organic compounds (VOC), H360: May damage the unborn child or fertility
132-61-6	N-(4-chlorophenyl)-2-hydroxy-9H-carbazole-3-carboxamide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
6410-41-9	N-(5-chloro-2,4-dimethoxyphenyl)-4-[[5-[[diethylamino]sulphonyl]-2-methoxyphenyl]azo]-3-hydroxynaphthalene-2-carboxamide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
12236-64-5	N-[4-(acetylamino)phenyl]-4-[[5-(aminocarbonyl)-2-chlorophenyl]azo]-3-hydroxynaphthalene-2-carboxamide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
79542-46-4	N-[4-chloro-2-[2-(2-chloro-4-nitrophenyl)azo]-5-[[2-hydroxy-3-phenoxypropyl]amino]phenyl]acetamide	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
110-54-3	n-hexane	Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H361: Suspected of damaging the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
91-20-3	naphthalene	Aromatic compounds, Polyaromatic hydrocarbons (PAHs), Solvents, Volatile organic compounds (VOC), H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
70776-03-3	Naphthalene, chloro derivs.	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
811-97-2	norflurane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
55512-33-9	O-(6-chloro-3-phenylpyridazin-4-yl) S-octyl thiocarbonate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
2199-69-1	o-dichloro(2H4)benzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes, Solvents
615-28-1	o-phenylenediamine dihydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Phenylenediamines, Solvents, H301: Toxic if swallowed, H317: May cause allergic skin reaction, H341: Suspected of causing genetic defects, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
95-47-6	o-xylene	Aromatic compounds, Solvents, Volatile organic compounds (VOC)
2234-13-1	octachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
76-19-7	octafluoropropane	Ozone thinning agents (CFCs), Perfluorocarbons (PFCs), Solvents, Volatile organic compounds (VOC)



106-42-3	p-xylene	Aromatic compounds, Solvents, Volatile organic compounds (VOC)
608-93-5	pentachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents
133-49-3	pentachlorobenzenethiol	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents
76-01-7	pentachloroethane	Chlorinated ethanes, Solvents, Volatile organic compounds (VOC), H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
1321-64-8	pentachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
87-86-5	pentachlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
354-33-6	pentafluoroethane	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
109-66-0	pentane	Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H411: Toxic to aquatic life with long-lasting effects
138495-42-8	Pentane, 1,1,2,2,3,4,5,5,5-decafluoro-	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
76-16-4	perfluoroethane	Ozone thinning agents (CFCs), Perfluorocarbons (PFCs), Solvents, Volatile organic compounds (VOC)
108-95-2	phenol	Aromatic compounds, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H373: May cause damage to organs through prolonged or repeated exposure
2040-90-6	Phenol, 2-chloro-6-fluoro-	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers
64111-81-5	Phenol, 2-phenoxy-, trichloro deriv.	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
27140-08-5	phenylhydrazine hydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Phenylhydrazine and its salts, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H350: May cause cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life
59-88-1	phenylhydrazinium chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Phenylhydrazine and its salts, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H350: May cause cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life
117310-64-2	Phosphine oxide, (butylphenyl) bis(2,6-dichlorobenzoyl)-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
375-03-1	Propane, 1,1,2,2,3,3,3-heptafluoro-3-methoxy-	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
690-39-1	Propane, 1,1,1,3,3,3-hexafluoro-	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
460-73-1	Propane, 1,1,1,3,3-pentafluoro-	Hydrofluorocarbons (HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
76-17-5	Propane, 1,2,3-trichloro-1,2,3,3-pentafluoro-	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)



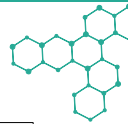
12223-33-5	Propanenitrile, 3-[[4-[2-(2,6-dichloro-4-nitrophenyl)diazanyl]phenyl]ethylamino]-	Allergizing disperse dyes, Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments
35223-80-4	propyl 2-bromoacetate Volatile esters of bromoacetic acids: (c) Propyl bromoacetate	Brominated flame retardants, Flame retardants, Solvents, Volatile organic compounds (VOC)
91-22-5	quinoline	Quinoline and its strong acid salts, Solvents, H341: Suspected of causing genetic defects, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
530-64-3	quinolinium chloride	Quinoline and its strong acid salts, Solvents
530-66-5	quinolinium hydrogen sulphate	Quinoline and its strong acid salts, Solvents
	SD570	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers
94248-26-7	sodium 1-chloro-N-(o-phenoxyphenyl)methanesulphonamidate, pentachloro derivative, sodium salt	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
83721-48-6	sodium chloro-N-[2,3,4,5-tetrachloro-6-(2,4-dichlorophenoxy)phenyl]methanesulphonamidate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
83721-47-5	sodium chloro-N-[2,3,4-trichloro-6-(2,4-dichlorophenoxy)phenyl]methanesulphonamidate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Solvents
100-42-5	styrene	Solvents, Volatile organic compounds (VOC), H361: Suspected of damaging the unborn child or fertility, H372: Causes damage to organs through prolonged or repeated exposure
2551-62-4	sulphur hexafluoride	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
72-54-8	TDE	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides
61788-33-8	Terphenyl, chlorinated	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated terphenyls (PCTs)
76-12-0	tetrachloro-1,2-difluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
12408-10-5	tetrachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents, Tetrachlorobenzenes
127-18-4	tetrachloroethylene	Solvents, Volatile organic compounds (VOC), H351: Suspected of causing cancer, H411: Toxic to aquatic life with long-lasting effects
1335-88-2	tetrachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
1006-31-1	Tetrachlorotoluene 1,2,4,5-tetrachloro-3-Methylbenzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Tetra Chlorotoluenes
29733-70-8	Tetrachlorotoluene Benzene,tetra-chloromethyl-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Tetra Chlorotoluenes
116-14-3	tetrafluoroethylene	Ozone thinning agents (CFCs), Perfluorocarbons (PFCs), Solvents, Volatile organic compounds (VOC)
109-99-9	tetrahydrofuran	Solvents, Volatile organic compounds (VOC), H351: Suspected of causing cancer
108-88-3	toluene	Aromatic compounds, Solvents, Volatile organic compounds (VOC), H304: May be fatal if swallowed and enters airways, H361: Suspected of damaging the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure
12002-48-1	trichlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Solvents



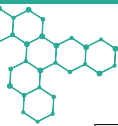
79-01-6	trichloroethylene	Solvents, Volatile organic compounds (VOC), H341: Suspected of causing genetic defects, H350: May cause cancer, H412: Harmful to aquatic life with long-lasting effects
75-69-4	trichlorofluoromethane	Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
1321-65-9	trichloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
25167-82-2	trichlorophenol	Aromatic compounds, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents
30583-33-6	trichlorotoluene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, TriChlorotoluenes
98-07-7	trichlorotoluene, alfa, alfa, alfa-	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chlorotoluenes, Solvents, TriChlorotoluenes, H331: Toxic if inhaled, H350: May cause cancer
354-58-5	trichlorotrifluoroethane	Chlorinated ethanes, Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
3380-34-5	triclosan	Aromatic compounds, Biocides, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H410: Very toxic to aquatic life with long-lasting effects
421-14-7	trifluoro(methoxy)methane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
75-46-7	trifluoromethane	Hydrofluorocarbons(HFCs), Ozone thinning agents (CFCs), Solvents, Volatile organic compounds (VOC)
25551-13-7	trimethylbenzene	Aromatic compounds, Solvents, Volatile organic compounds (VOC)
1330-20-7	xylene	Aromatic compounds, Solvents, Volatile organic compounds (VOC)

Annex-4: Surfactants Used in Textile Industry

CAS Number	Chemical substance	Functional/Hazard Groups
27193-28-8	(1,1,3,3-tetramethylbutyl)phenol	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants
2315-64-2	1-[4-(2,4,4-trimethylpentan-2-yl)phenyl]-1,4,7,10,13-pentaoxapentadecan-15-ol Octylphenol ethoxylates (OPEs)	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenoethoxylates (OPEO), Surfactants
1322-97-0	2-(octylphenoxy)ethanol	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenoethoxylates (OPEO), Surfactants
51437-89-9	2-(p-octylphenoxy)ethanol	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenoethoxylates (OPEO), Surfactants
27176-93-8	2-[2-(nonylphenoxy)ethoxy]ethanol	Aromatic compounds, Nonylphenoethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
34166-38-6	2-[2-[2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethanol	Nonylphenoethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO)
27176-95-0	2-[2-[2-(2-nonylphenoxy)ethoxy]ethoxy]ethan-1-ol Nonylphenol ethoxylates (NPEs)	Aromatic compounds, Nonylphenoethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants



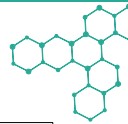
2315-61-9	2-[2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethoxy]ethan-1-ol Octylphenol ethoxylates (OPEs) 4-tert-Octylphenol diethoxylate	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenolethoxylates (OPEO), Surfactants
14409-72-4	3,6,9,12,15,18,21,24-Octaoxaheacosan-1-ol, 26-(4-nonylphenoxy)-	Aromatic compounds, Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
140-66-9	4-(1,1,3,3-tetramethylbutyl)phenol	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
186825-36-5	4-(3,5-Dimethyl-3-heptyl)phenol	Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO)
142731-63-3	4-(3,6-Dimethyl-3-heptyl)phenol	Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO)
104-35-8	4-Nonyl Phenol Monoethoxylate	Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO)
127087-87-0	4-Nonylphenol, branched, ethoxylated	Aromatic compounds, Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
26027-38-3	4-Nonylphenol, ethoxylated	Aromatic compounds, Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
156609-10-8	4-TERT-NONYLPHENOLDIETHOXYLATE	Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO)
11066-49-2	isononylphenol	Aromatic compounds, Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
25154-52-3	nonylphenol	Aromatic compounds, Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants, H361: Suspected of damaging the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
68412-54-4	Nonylphenol, branched, ethoxylated	Aromatic compounds, Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
9016-45-9	Nonylphenol, ethoxylated	Aromatic compounds, Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
949-13-3	o-octylphenol	Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants
67554-50-1	octylphenol	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants
104-40-5	p-nonylphenol	Aromatic compounds, Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
1806-26-4	p-octylphenol	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants
84852-15-3	Phenol, 4-nonyl-, branched	Aromatic compounds, Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants, H361: Suspected of damaging the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
90481-04-2	Phenol, nonyl-, branched	Aromatic compounds, Nonylphenols (NP), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
37205-87-1	Poly(oxy-1,2-ethanediyl), ?-(isononylphenyl)-?-hydroxy-	Aromatic compounds, Nonylphenolethoxylates (NPEO), Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Surfactants
9063-89-2	Poly(oxy-1,2-ethanediyl), ?-(octylphenyl)-?-hydroxy-	Nitrate Compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenolethoxylates (OPEO), Surfactants



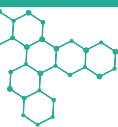
68987-90-6	Poly(oxy-1,2-ethanediyl), ?-(octylphenyl)-?-hydroxy-, branched	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenoethoxylates (OPEO), Surfactants
9036-19-5	Poly(oxy-1,2-ethanediyl), ?-[(1,1,3,3-tetramethylbutyl)phenyl]-?-hydroxy-	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenoethoxylates (OPEO), Surfactants
9002-93-1	Poly(oxy-1,2-ethanediyl), ?-[4-(1,1,3,3-tetramethylbutyl)phenyl]-?-hydroxy-	Aromatic compounds, Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenoethoxylates (OPEO), Surfactants
91080-51-2	Quaternary ammonium compounds, benzyl-C10-16-alkyldimethyl, salts with 4-octylphenol	Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants
91721-82-3	Quaternary ammonium compounds, benzyl-C10-16-alkyldimethyl, salts with isooctylphenol	Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants
97676-08-9	Quaternary ammonium compounds, benzyl-C12-14-alkyldimethyl, salts with isooctylphenol	Nonylphenols, Octylphenols and their Etoxilates (NP, OP, NPE, OPEO), Octylphenols (OP), Surfactants

Annex-5: Water- and Stain-repellents Used in Textile Industry

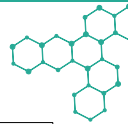
CAS No.	Chemical substance	Functional/Hazard Groups
10116-92-4		Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
10495-86-0		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
106443-63-4		Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
120885-29-2		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
1214264-29-5		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
1214264-30-8		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
167398-54-1		Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
171978-95-3		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
196859-54-8		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
30334-69-1		Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
365971-87-5		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
423-41-6		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
44864-55-3		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
45048-62-2		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
45167-47-3		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
45187-15-3		Perfluoroalkylsulfonates (PASF), Perfluorobutanesulfonates (PFBS), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
45285-51-6		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)



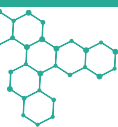
474511-07-4		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
72007-68-2		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
73829-36-4		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
749786-16-1		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
798556-82-8		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
82765-76-2		Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
82765-77-3		Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
862374-87-6		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
92612-52-7		Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
34454-97-2	1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methylbutane-1-sulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorobutanesulfonamidoethanols, Perfluorocarbons (PFCs)
34454-99-4	1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)butane-1-sulfonamide	Perfluoroalkylsulfonamidoethanols, Perfluorobutanesulfonamidoethanols, Perfluorocarbons (PFCs)
375-73-5	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid	Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
68555-74-8	1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-N-methylpentane-1-sulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
68555-76-0	1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-N-methylheptane-1-sulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
375-92-8	1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptane-1-sulphonic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
79780-39-5	1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-pentacosafuorododecane-1-sulphonic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
4234-23-5	1-(3-chlorophenyl)-1H-pyrrole	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2448-09-7	2-(N-methylperfluoro-FASE 1-oc-tanesulfonamido)-ethanol (Me-FOSE)	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
34598-33-9	4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-hepta-decafluoroundecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
68259-07-4	ammonium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptane-1-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
67906-42-7	ammonium heneicosafuorodecane-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
4149-60-4	ammonium heptadecafluorononanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
29081-56-9	ammonium heptadecafluorooctanesulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H362: May cause harm to breast fed children, H372: Causes damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
3108-42-7	ammonium nonadecafluorodecanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)



17202-41-4	ammonium nonadecafluorononane-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
3825-26-1	ammonium pentadecafluorooctanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctanoic acid (PFOA), its salts and esters
6130-43-4	ammonium perfluoroheptanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
68259-11-0	ammonium perfluorovalerate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
21615-47-4	ammonium undecafluorohexanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
3108-24-5	ethyl perfluorooctanoate	Perfluorocarbons (PFCs), Perfluorooctanoic acid (PFOA), its salts and esters
335-77-3	henicosafluorodecanesulphonic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2058-94-8	henicosafluoroundecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
376-06-7	heptacosafuorotetradecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
24448-09-7	heptadecafluoro-N-(2-hydroxyethyl)-N-methyloctanesulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
31506-32-8	heptadecafluoro-N-methyloctane-sulphonamide	Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
1763-23-1	heptadecafluorooctane-1-sulphonic acid	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H362: May cause harm to breast fed children, H372: Causes damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
754-91-6	heptadecafluorooctanesulphonamide	Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
70225-14-8	heptadecafluorooctanesulphonic acid, compound with 2,2'-imino-diethanol (1:1)	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorooctane sulfonate (PFOS) and related substances, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H362: May cause harm to breast fed children, H372: Causes damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
307-35-7	heptadecafluorooctanesulphonyl fluoride	Perfluorocarbons (PFCs), Perfluorooctane sulfonate (PFOS) and related substances
375-22-4	heptafluorobutyric acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
29457-72-5	lithium heptadecafluorooctanesulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H362: May cause harm to breast fed children, H372: Causes damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
376-27-2	methyl perfluorooctanoate	Perfluorocarbons (PFCs), Perfluorooctanoic acid (PFOA), its salts and esters
34449-89-3	N-ethyl-1,1,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)butane-1-sulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorobutanesulfonamidoethanols, Perfluorocarbons (PFCs)
68555-72-6	N-ethyl-1,1,2,3,3,4,4,5,5-undecafluoro-N-(2-hydroxyethyl)pentane-1-sulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
68555-73-7	N-ethyl-1,1,2,3,3,4,4,5,5,6,6,7,7-pentadecafluoro-N-(2-hydroxyethyl)heptane-1-sulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)



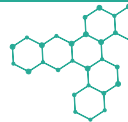
1691-99-2	N-ethylheptadecafluoro-N-(2-hydroxyethyl)octanesulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
4151-50-2	N-ethylheptadecafluorooctanesulphonamide	Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
34455-03-3	N-ethyltridecafluoro-N-(2-hydroxyethyl)hexanesulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
141074-63-7	nonacosafuoropentadecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
335-76-2	nonadecafluorodecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
59933-66-3	nonafluorobutane-1-sulfonic acid	Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
72629-94-8	pentacosafuorotridecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
335-67-1	pentadecafluorooctanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctanoic acid (PFOA), its salts and esters
354-88-1	pentafluoroethane-1-sulfonic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
422-64-0	pentafluoropropionic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
29420-43-3	Perfluorobutane sulfonic acid / Perfluorobutanesulfonates (PFBS)	Perfluorobutane sulfonic acids, Perfluorobutanesulfonates (PFBS), Perfluorocarbons (PFCs)
126105-34-8	Perfluorodecane Sulfonate (PFDS)	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
375-85-9	perfluoroheptanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
108427-53-8	Perfluorohexane sulfonic acid	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
355-46-4	perfluorohexane-1-sulphonic acid	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
375-95-1	perfluorononan-1-oic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
67905-19-5	perfluoropalmitic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2706-91-4	perfluoropentane-1-sulphonic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
16517-11-6	perfluorostearic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2706-90-3	perfluorovaleric acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
432-50-7	Perluorohexane sulfonic acid / Perfluorohexane sulfonate (PFHxS)	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs)
45298-90-6	PFOS, Perfluorooctanesulfonate anion	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances
29420-49-3	potassium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs)
60270-55-5	potassium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptane-1-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2806-16-8	potassium henicosafuorodecane-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)



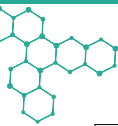
2795-39-3	potassium heptadecafluorooctane-1-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H362: May cause harm to breast fed children, H372: Causes damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
3871-99-6	potassium perfluorohexane-1-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2395-00-8	potassium perfluorooctanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctanoic acid (PFOA), its salts and esters
3872-25-1	potassium perfluoropentane-1-sulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
335-93-3	silver(1+) perfluorooctanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Silver Compounds
4021-47-0	sodium heptadecafluorooctane-1-sulfonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances
2218-54-4	sodium heptafluorobutyrate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
335-95-5	sodium pentadecafluorooctanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctanoic acid (PFOA), its salts and esters
20109-59-5	sodium perfluoroheptanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
21049-39-8	Sodium salts of perfluoronon-1-oic-acid Sodium salts of perfluoronon-1-oic-acid Sodium salts of perfluoronon-1-oic-acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
2923-26-4	sodium undecafluorohexanoate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
56773-42-3	tetraethylammonium heptadecafluorooctanesulphonate	Perfluoroalkylsulfonates (PASf), Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), Perfluorooctane sulfonate (PFOS) and related substances
307-55-1	tricosfluorododecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
68555-75-9	tridecafluoro-N-(2-hydroxyethyl)-N-methylhexanesulphonamide	Perfluoroalkylsulfonamidoethanols, Perfluorocarbons (PFCs)
41997-13-1	tridecafluorohexane-1-sulfonamide	Perfluoroalkylsulfonamides, Perfluorocarbons (PFCs)
14477-72-6	trifluoroacetate	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
76-05-1	trifluoroacetic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA), H412: Harmful to aquatic life with long-lasting effects
1493-13-6	trifluoromethanesulphonic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
57475-95-3	tritriacontafluoroheptadecanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)
307-24-4	undecafluorohexanoic acid	Perfluorocarbons (PFCs), Perfluorocarboxylic acid and salts (PFCA)

Annex-6: Biocides and Pesticides Used in Textile Industry

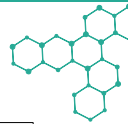
CAS No.	Chemical substance	Functional/Hazard Groups
319-84-6	1,2,3,4,5,6-hexachlorocyclohexane	Pesticides
319-85-7	1,2,3,4,5,6-hexachlorocyclohexane	Pesticides
319-86-8	1,2,3,4,5,6-hexachlorocyclohexane	Pesticides



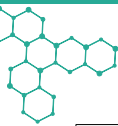
465-73-6	1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-dimethanonaphthalene	Pesticides, H300: Fatal if swallowed, H310: Fatal in contact with skin, H330: Fatal if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
8001-50-1	(1S,4R)-1,2,2,3,3,4,7-heptachloro-5,5-dimethyl-6-methyliden-ebicyclo[2.2.1]heptane Strobane	Pesticides
94-74-6	(4-chloro-2-methylphenoxy)acetic acid	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
141-66-2	(E)-3-(dimethylamino)-1-methyl-3-oxoprop-1-enyl dimethyl phosphate	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
52918-63-5	?-cyano-3-phenoxybenzyl [1R-[1?(S*),3?]]-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate	Pesticides, H301: Toxic if swallowed, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
52315-07-8	?-cyano-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	Pesticides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
68359-37-5	?-cyano-4-fluoro-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	Pesticides, H300: Fatal if swallowed, H330: Fatal if inhaled, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
69770-45-2	?-cyano-4-fluoro-3-phenoxybenzyl 3-[2-chloro-2-(4-chlorophenyl)vinyl]-2,2-dimethylcyclopropanecarboxylate	Pesticides
58-89-9	?-HCH or ?-BHC	Pesticides, H301: Toxic if swallowed, H362: May cause harm to breast fed children, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
4685-14-7	1,1'-dimethyl-4,4'-bipyridinium	Pesticides
72-56-0	1,1-dichloro-2,2-bis(4-ethylphenyl)ethane	Pesticides
1825-21-4	1,2,3,4,5-pentachloro-6-methoxybenzene Pentachloroanisole	Pesticides
96-12-8	1,2-dibromo-3-chloropropane	Brominated flame retardants, Flame retardants, Pesticides, H301: Toxic if swallowed, H340: May cause genetic defects, H350: May cause cancer, H360: May damage the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure, H412: Harmful to aquatic life with long-lasting effects
106-93-4	1,2-dibromoethane	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
789-02-6	2,2,2,0,p'-pentachloroethylidenebisbenzene	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides
3424-82-6	2,2,0,p'-tetrachlorovinylidenebisbenzene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Pesticides
72-55-9	2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Pesticides
93-76-5	2,4,5-trichlorophenoxy acetic acid 2,4,5-T (ISO)	Aromatic compounds, Chlorinated aromatics, Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
94-75-7	2,4-D	Pesticides, H317: May cause allergic skin reaction, H412: Harmful to aquatic life with long-lasting effects
93-65-2	2-(4-chloro-2-methylphenoxy)propionic acid	Pesticides
64628-44-0	2-chloro-N-[[[4-(trifluoromethoxy)phenyl]amino]carbonyl]benzamide	Pesticides



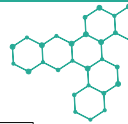
79-07-2	2-chloroacetamide	Biocides, H301: Toxic if swallowed, H317: May cause allergic skin reaction, H361: Suspected of damaging the unborn child or fertility
34123-59-6	3-(4-isopropylphenyl)-1,1-dimethylurea	Pesticides, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
101-68-8	4,4'-methylenediphenyl diisocyanate	Aromatic compounds, Biocides, Isocyanates, H317: May cause allergic skin reaction, H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled, H351: Suspected of causing cancer, H373: May cause damage to organs through prolonged or repeated exposure
112636-83-6	5-Pyrimidinecarbonitrile, 4,6-diamino-2-(cyclopropylamino)-	Pesticides
160430-64-8	acetamiprid (E)-N-(6-Chloro-3-pyridylmethyl)-N'-cyano-N-methylacetamidine	Pesticides
15972-60-8	alachlor	Pesticides, H317: May cause allergic skin reaction, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
116-06-3	aldicarb	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
309-00-2	aldrin	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
12125-02-9	ammonium chloride	Biocides
7440-38-2	arsenic	Arsenic compounds, Biocides, H301: Toxic if swallowed, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1912-24-9	atrazine	Pesticides, H317: May cause allergic skin reaction, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
2642-71-9	azinphos-ethyl	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
86-50-0	azinphos-methyl	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H330: Fatal if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
66230-04-4	Benzeneacetic acid, 4-chloro-2-(1-methylethyl)-, (S)-cyano(3-phenoxyphenyl)methyl ester, (?S)-	Pesticides, H301: Toxic if swallowed, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
608-73-1	BHC or HCH	Pesticides
485-31-4	binapacryl	Pesticides, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
56-35-9	bis(tributyltin) oxide	Biocides, Organic tin compounds, Tri-substituted organotin compounds, Tributyltin compounds
10043-35-3	boric acid	Biocides, Boric acid and derivatives, H360: May damage the unborn child or fertility
11113-50-1	Boric acid	Biocides, Boric acid and derivatives, H360: May damage the unborn child or fertility



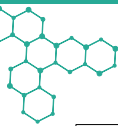
74-83-9	bromomethane	Ozone-depleting substances (CFC's), Pesticides, H301: Toxic if swallowed, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H420: Harms public health and the environment by destroying ozone in the upper atmosphere
4824-78-6	bromophos-ethyl	Pesticides, H301: Toxic if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
94-26-8	Butyl paraben butyl 4-hydroxy-benzoate	Biocides
2425-06-1	captafol	Pesticides, H317: May cause allergic skin reaction, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
63-25-2	carbaryl	Pesticides, H351: Suspected of causing cancer, H400: Very toxic to aquatic life
10605-21-7	carbendazim	Pesticides, H340: May cause genetic defects, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
57-74-9	chlordane , pur	Pesticides, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
143-50-0	chlordecone	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
6164-98-3	chlordimeform	Pesticides, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
470-90-6	chlorfenvinphos	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1698-60-8	chloridazon	Pesticides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
510-15-6	chlorobenzilate	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1897-45-6	chlorothalonil	Pesticides, H317: May cause allergic skin reaction, H330: Fatal if inhaled, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
2921-88-2	chlorpyrifos	Pesticides, H301: Toxic if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
50-29-3	clofenotane	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides, H301: Toxic if swallowed, H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
56-72-4	coumaphos	Pesticides, H300: Fatal if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
51630-58-1	cyano (3-phenoxybenzyl)-2-(4-chlorophenyl)-3-methylbutyrate	Pesticides
91465-08-6	Cyclopropanecarboxylic acid, 3-[[1Z]-2-chloro-3,3-trifluoro-1-propen-1-yl]-2,2-dimethyl-, (R)-cyano(3-phenoxyphenyl)methyl ester, (1S,3S)-rel-	Pesticides, H301: Toxic if swallowed, H330: Fatal if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
919-86-8	demeton-S-methyl	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H411: Toxic to aquatic life with long-lasting effects



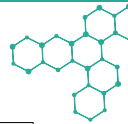
333-41-5	diazinon	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1002-53-5	dibutylstannanylidene Dibutyltin (DBT)	Biocides, Dibutyltin compounds, Organic tin compounds
97-17-6	dichlofenthion	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1085-98-9	dichlofluanid	Pesticides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life
731-27-1	dichloro-N-[(dimethylamino)sulphonyl]fluoro-N-(p-tolyl)methanesulphenamide	Pesticides, H317: May cause allergic skin reaction, H330: Fatal if inhaled, H372: Causes damage to organs through prolonged or repeated exposure
97-23-4	dichlorophen	Biocides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
120-36-5	dichlorprop	Pesticides
62-73-7	dichlorvos	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H330: Fatal if inhaled, H400: Very toxic to aquatic life
115-32-2	dicofol	Pesticides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
60-57-1	dieldrin	Pesticides, H301: Toxic if swallowed, H310: Fatal in contact with skin, H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
60-51-5	dimethoate	Pesticides
624-49-7	dimethyl fumarate	Biocides
88-85-7	dinoseb	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1420-07-1	dinoterb	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
15231-44-4	dioctylstannanylidene Dioctyltin (DOT)	Biocides, Dioctyltin compounds, Organic tin compounds
1330-43-4	disodium tetraborate, anhydrous	Biocides, Boric acid and derivatives
298-04-4	disulfoton	Pesticides, H300: Fatal if swallowed, H310: Fatal in contact with skin, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
330-54-1	diuron	Pesticides, H351: Suspected of causing cancer, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
2385-85-5	dodecachloropentacyclo[5.2.1.0 ^{2,6} .0 ^{3,9} .0 ^{5,8}]decane	Pesticides, H351: Suspected of causing cancer, H361: Suspected of damaging the unborn child or fertility, H362: May cause harm to breast fed children, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
115-29-7	endosulfan	Pesticides, H300: Fatal if swallowed, H330: Fatal if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
33213-65-9	Endosulfan, beta-	Pesticides
959-98-8	Endosulfane Endosulphane	Pesticides
72-20-8	endrin	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects



563-12-2	ethion	Pesticides, H301: Toxic if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
75-21-8	ethylene oxide	Pesticides, H331: Toxic if inhaled, H340: May cause genetic defects, H350: May cause cancer
299-84-3	fenchlorphos	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
122-14-5	fenitrothion	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
93-72-1	fenoprop	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
111-30-8	glutaral	Biocides, H301: Toxic if swallowed, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled, H400: Very toxic to aquatic life
76-44-8	heptachlor	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H351: Suspected of causing cancer, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1024-57-3	heptachlor epoxide	Pesticides, H301: Toxic if swallowed, H351: Suspected of causing cancer, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
118-74-1	hexachlorobenzene	Aromatic compounds, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Pesticides, Solvents, H350: May cause cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
105827-78-9	Imidacloprid 2-Imidazolidinimine, 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-, (2E)-	Pesticides
297-78-9	isobenzan	Pesticides, H300: Fatal if swallowed, H310: Fatal in contact with skin, H400: Very toxic to aquatic life
4234-79-1	Kelevan (ISO) ethyl 5-(perchloro-5-hydroxypentacyclo[5,3,0,02,6,03,9,04,8]decan-5-yl)-4-oxopentanoate	Pesticides, H311: Toxic in contact with skin, H411: Toxic to aquatic life with long-lasting effects
330-55-2	linuron	Pesticides, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
52645-53-1	m-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	Biocides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
121-75-5	malathion	Pesticides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
94-81-5	MCPB	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
10265-92-6	methamidophos	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H400: Very toxic to aquatic life
72-43-5	methoxychlor	Pesticides
7786-34-7	mevinphos	Pesticides, H300: Fatal if swallowed, H310: Fatal in contact with skin, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
53-19-0	mitotane	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides



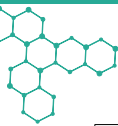
6923-22-4	monocrotophos	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H341: Suspected of causing genetic defects, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1746-81-2	monolinuron	Pesticides, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
19750-95-9	N'-(4-chloro-o-tolyl)-N,N-dimethylformamidine monohydrochloride	Pesticides, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
35367-38-5	N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide	Pesticides
50471-44-8	N-3,5-dichlorophenyl-5-methyl-5-vinyl-1,3-oxazolidine-2,4-dione	Pesticides, H317: May cause allergic skin reaction, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H411: Toxic to aquatic life with long-lasting effects
150824-47-8	Nitenpyram	Pesticides
41198-08-7	O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1113-02-6	omethoate	Pesticides, H301: Toxic if swallowed, H400: Very toxic to aquatic life
301-12-2	oxydemeton-methyl	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H400: Very toxic to aquatic life
1910-42-5	paraquat-dichloride	Pesticides, H301: Toxic if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
56-38-2	parathion	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
298-00-0	parathion-methyl	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H330: Fatal if inhaled, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
13171-21-6	phosphamidon	Pesticides, H300: Fatal if swallowed, H311: Toxic in contact with skin, H341: Suspected of causing genetic defects, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
14816-18-3	phoxim	Pesticides, H317: May cause allergic skin reaction, H361: Suspected of damaging the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
29232-93-7	pirimiphos-methyl	Pesticides, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
709-98-8	propanil	Pesticides, H400: Very toxic to aquatic life
94-13-3	Propyl parabenPropyl paraben propyl 4-hydroxybenzoate	Biocides
63449-41-2	Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	Biocides, H400: Very toxic to aquatic life
13593-03-8	quinalphos	Pesticides, H301: Toxic if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
82-68-8	quintozene	Pesticides, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
78-48-8	S,S,S-tributylphosphorotrithioate	Pesticides



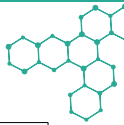
72-54-8	TDE	Aromatic compounds, Chlorinated aromatics, Chlorinated ethanes, Chlororganic carriers, Pesticides
55566-30-8	tetrakis(hydroxymethyl)phosphonium sulphate(2:1)	Biocides
111988-49-9	ThiaclopridThiaclopridThiacloprid Cyanamide, N-[3-[(6-chloro-3-pyridinyl)methyl]-2-thiazolidinylidene]-, [N(Z)]-	Pesticides
57648-21-2	timiperone	Pesticides
8001-35-2	Toxaphene	Pesticides, H301: Toxic if swallowed, H351: Suspected of causing cancer, H410: Very toxic to aquatic life with long-lasting effects
31218-83-4	trans-isopropyl-3-[[[(ethylamino) methoxyfosfinothioyl]oxy]crotonate	Pesticides, H301: Toxic if swallowed, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
56573-85-4	Tributyltin	Biocides, Organic tin compounds, Tri-substituted organotin compounds, Tributyltin compounds
52-68-6	trichlorfon	Pesticides, H317: May cause allergic skin reaction, H410: Very toxic to aquatic life with long-lasting effects
3380-34-5	triclosan	Aromatic compounds, Biocides, Chlorinated aromatics, Chlorinated phenols, Chlororganic carriers, Solvents, H410: Very toxic to aquatic life with long-lasting effects
1582-09-8	trifluralin	Pesticides, H317: May cause allergic skin reaction, H351: Suspected of causing cancer, H410: Very toxic to aquatic life with long-lasting effects
668-34-8	triphenylstannylum Triphenyltin	Aromatic compounds, Biocides, Organic tin compounds, Tri-substituted organotin compounds, Triphenyltin compounds
143860-04-2	ZOLDINE MS-PLUS 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	Pesticides

Annex-7: Flame Retardants Used in Textile Industry

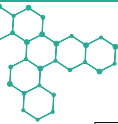
CAS No	Chemical substance	Functional/Hazard Groups
21850-44-2	1,1'-(isopropylidene)bis[3,5-dibromo-4-(2,3-dibromopropoxy)benzene]	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
1336-36-3	1,1'-Biphenyl, chloro derivs.	Aromatic compounds, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
593-92-0	1,1-dibromoethylene	Brominated flame retardants, Flame retardants
35194-78-6	1,2,3,4,5-pentabromo-6-(2,3-dibromophenyl)benzene Heptabromo-1,1'-biphenyl Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
189084-68-2	1,2,3,4,5-pentabromo-6-(3,4-dibromophenoxy)benzene PCB 183 2,2',3,4,4',5',6-Heptabromodiphenyl ether	Aromatic compounds, Brominated flame retardants, Flame retardants
40186-72-9	1,2,3,4,5-pentachloro-6-(2,3,4,5-tetrachlorophenyl)benzene PCB 206 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-78-2	1,2,3,4,5-pentachloro-6-(2,3,4-trichlorophenyl)benzene PCB 195 2,2',3,3',4,4',5,5',6-Octachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



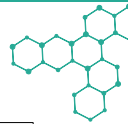
52663-76-0	1,2,3,4,5-pentachloro-6-(2,4,5-trichlorophenyl)benzene PCB 203 2,2',3,4,4',5,5',6-Octa- chlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35694-08-7	1,2,3,4-tetrachloro-5-(2,3,4,5-tetrachlorophenyl)benzene PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-30-6	1,2,3,4-tetrachloro-5-(2,3,4-trichlorophenyl)benzene PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-74-8	1,2,3,4-tetrachloro-5-(2,3,5-trichlorophenyl)benzene PCB 172 2,2',3,3',4,4',5,5'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-29-3	1,2,3,4-tetrachloro-5-(2,4,5-trichlorophenyl)benzene PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
39635-31-9	1,2,3,4-tetrachloro-5-(3,4,5-trichlorophenyl)benzene PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-08-4	1,2,3,4-tetrachloro-5-(3,4-dichlorophenyl)benzene PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
74472-37-0	1,2,3,4-tetrachloro-5-(4-chlorophenyl)benzene PCB 114 2,3,4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
446255-22-7	1,2,3,5-tetrabromo-4-(2,3,5-tribromophenoxy)benzene heptabromodiphenyl ether, (BDE-175)	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
207122-16-5	1,2,3,5-tetrabromo-4-(2,4,5-tribromophenoxy)benzene heptabromodiphenyl ether, (BDE-183)	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
42740-50-1	1,2,3,5-tetrachloro-4-(2,3,4,5-tetrachlorophenyl)benzene PCB 196 2,2',3,3',4,4',5,6'-Octa- chlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
74472-42-7	1,2,3,5-tetrachloro-4-(3,4-dichlorophenyl)benzene PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
51202-79-0	1,2,3-tribromo-4-phenylbenzene Tribromo-2,3,4-biphenyl Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
59536-65-1	1,2,3-tribromo-5-(2,3,4-tribromophenyl)benzene hexabromobiphenyl (technicalgrade) Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
56307-79-0	1,2,3-tribromo-5-(3,4-dibromophenyl)benzene Pentabromo-1,1'-biphenyl Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
38380-07-3	1,2,3-trichloro-4-(2,3,4-trichlorophenyl)benzene PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
11096-82-5	1,2,3-trichloro-4-(2,3,4-trichlorophenyl)benzene PCB Aroclor 1260 (Clophen A60)	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-02-8	1,2,3-trichloro-4-(2,5-dichlorophenyl)benzene PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32598-14-4	1,2,3-trichloro-4-(3,4-dichlorophenyl)benzene PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



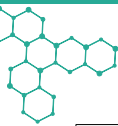
52663-72-6	1,2,3-trichloro-5-(2,4,5-trichlorophenyl)benzene PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
65510-44-3	1,2,3-trichloro-5-(2,4-dichlorophenyl)benzene PCB 123 2',3,4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32774-16-6	1,2,3-trichloro-5-(3,4,5-trichlorophenyl)benzene PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
70362-50-4	1,2,3-trichloro-5-(4-chlorophenyl)benzene PCB 81 3,4,4',5-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-75-9	1,2,4,5-tetrachloro-3-(2,3,4,5-tetrachlorophenyl)benzene PCB 199 2,2',3,3',4,5,5',6-Octachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-70-4	1,2,4,5-tetrachloro-3-(2,3,4-trichlorophenyl)benzene PCB 177 2,2',3,3',4,5,5',6'-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-67-9	1,2,4,5-tetrachloro-3-(2,3,5-trichlorophenyl)benzene PCB 178 2,2',3,3',4,5,5',6-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-68-0	1,2,4,5-tetrachloro-3-(2,4,5-trichlorophenyl)benzene PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
52663-63-5	1,2,4,5-tetrachloro-3-(2,5-dichlorophenyl)benzene PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
68631-49-2	1,2,4-tribromo-5-(2,4,5-tribromophenoxy)benzene Hexabromodiphenyl ether, (BDE-153)	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
59080-40-9	1,2,4-tribromo-5-(2,4,5-tribromophenyl)benzene 2,2',4,4',5,5'-Hexabromobiphenyl (BB 153)	Aromatic compounds, Brominated flame retardants, Flame retardants
60348-60-9	1,2,4-tribromo-5-(2,4-dibromophenoxy)benzene BDE 99 2,2',4,4',5-Pentabromodiphenyl ether	Aromatic compounds, Brominated flame retardants, Flame retardants
38380-03-9	1,2,4-trichloro-3-(3,4-dichlorophenyl)benzene PCB 110 2,3',4',6-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-28-2	1,2,4-trichloro-5-(2,3,4-trichlorophenyl)benzene PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
51908-16-8	1,2,4-trichloro-5-(2,3,5-trichlorophenyl)benzene PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-04-0	1,2,4-trichloro-5-(2,3,6-trichlorophenyl)benzene PCB 149 2,2',3,4',5,6'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35065-27-1	1,2,4-trichloro-5-(2,4,5-trichlorophenyl)benzene PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
38380-01-7	1,2,4-trichloro-5-(2,4-dichlorophenyl)benzene PCB 99 2,2',4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
37680-73-2	1,2,4-trichloro-5-(2,5-dichlorophenyl)benzene PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
31508-00-6	1,2,4-trichloro-5-(3,4-dichlorophenyl)benzene PCB 118 2,3',4,4',5-Pentachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



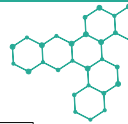
32690-93-0	1,2,4-trichloro-5-(4-chlorophenyl) benzene PCB 74 2,4,4',5-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
3194-55-6	1,2,5,6,9,10-hexabromocyclododecane	Brominated flame retardants, Flame retardants, H361: Suspected of damaging the unborn child or fertility, H362: May cause harm to breast fed children
134237-50-6	1,2,5,6,9,10-hexabromocyclododecane Hexabromocyclododecane, alfa isomer	Brominated flame retardants, Flame retardants
134237-51-7	1,2,5,6,9,10-hexabromocyclododecane Hexabromocyclododecane, beta isomer	Brominated flame retardants, Flame retardants
134237-52-8	1,2,5,6,9,10-hexabromocyclododecane Hexabromocyclododecane, gamma isomer	Brominated flame retardants, Flame retardants
40088-45-7	1,2-dibromo-3-(3,4-dibromophenyl) benzene Tetrabromo-1,1'-Biphenyl Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
96-12-8	1,2-dibromo-3-chloropropane	Brominated flame retardants, Flame retardants, Pesticides, H301: Toxic if swallowed, H340: May cause genetic defects, H350: May cause cancer, H360: May damage the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure, H412: Harmful to aquatic life with long-lasting effects
27479-65-8	1,2-dibromo-3-phenylbenzene Di-bromo-1,1'-biphenyl Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
3322-93-8	1,2-dibromo-4-(1,2-dibromoethyl) cyclohexane	Brominated flame retardants, Flame retardants
540-49-8	1,2-dibromoethylene	Brominated flame retardants, Flame retardants
124-73-2	1,2-dibromotetrafluoroethane	Brominated flame retardants, Flame retardants, Ozone-depleting substances (CFC's), Solvents, Volatile Organic Compounds (VOC)
41464-39-5	1,2-dichloro-3-(2,5-dichlorophenyl) benzene PCB 44 2,2',3,5'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32598-10-0	1,2-dichloro-4-(2,4-dichlorophenyl) benzene PCB 66 2,3',4,4'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
32598-13-3	1,2-dichloro-4-(3,4-dichlorophenyl) benzene PCB 77 3,3',4,4'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
35109-60-5	1,3,5-tribromo-2-(2,3-dibromopropoxy)benzene	Aromatic compounds, Brominated flame retardants, Flame retardants
207122-15-4	1,3,5-tribromo-2-(2,4,5-tribromophenoxy)benzene Hexabromodiphenyl ether, (BDE-154)	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
626-39-1	1,3,5-tribromobenzene	Aromatic compounds, Brominated flame retardants, Flame retardants
52434-90-9	1,3,5-tris(2,3-dibromopropyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	Brominated flame retardants, Flame retardants
12672-29-6	1,3-dichloro-5-(3,5-dichlorophenyl) benzene PCB Aroclor 1248	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
12674-11-2	1,3-dichloro-5-(3-chlorophenyl) benzene PCB Aroclor 1016	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
41464-40-8	1,4-dichloro-2-(2,4-dichlorophenyl) benzene PCB 49 2,2',4,5'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



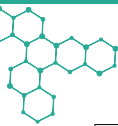
35693-99-3	1,4-dichloro-2-(2,5-dichlorophenyl)benzene PCB 52 2,2',5,5'-Tetrachlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
37680-65-2	1,4-dichloro-2-(2-chlorophenyl)benzene PCB 18 2,2',5-Trichlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
64086-95-9	1-amino-2-bromo-4-[[4-[(1-methylethyl)amino]-6-phenyl-1,3,5-triazin-2-yl]amino]anthraquinone	Aromatic compounds, Brominated flame retardants, Flame retardants
26264-10-8	1-bromo-2-phenylbenzene Bromo-1,1'-Biphenyl Polybrominated biphenyls (PBBs)	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
106-94-5	1-bromopropane	Brominated flame retardants, Flame retardants
155613-93-7	1H-Indene, 2,3-dihydro-1,1,3-trimethyl-3-phenyl-, octabromo deriv.	Aromatic compounds, Brominated flame retardants, Flame retardants
2134-15-8	2',4',5',7'-tetrabromo-4,5,6,7-tetrachloro-3',6'-dihydroxy-3H-spiro[2-benzofuran-1,9'-xanthen]-3-one Benzoic acid, 2,3,4,5-tetrachloro-6-(2,4,5,7-tetrabromo-6-hydroxy-3-oxo-3H-xanthen-9-yl) -	Brominated flame retardants, Flame retardants
79-94-7	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	Aromatic compounds, Brominated flame retardants, Flame retardants, H410: Very toxic to aquatic life with long-lasting effects
5468-75-7	2,2'-[[3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl]bis(azo)] bis[N-(2-methylphenyl)-3-oxobutyrarnide]	Aromatic compounds, Benzidine and its salts, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Isocyanates, Solvents
55619-18-6	2,2'-[[4-[(2,6-dibromo-4-nitrophenyl)azo]phenyl]imino]bisethyl diacetate	Aromatic compounds, Brominated flame retardants, Flame retardants
17464-91-4	2,2'-[[4-[(2-bromo-6-chloro-4-nitrophenyl)azo]-3-chlorophenyl]imino] bisethanol	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Brominated flame retardants, Flame retardants, Solvents
12239-34-8	2,2'-[[5-acetamide-4-[(2-bromo-4,6-dinitrophenyl)azo]-2-ethoxyphenyl]imino]diethyl diacetate	Aromatic compounds, Brominated flame retardants, Flame retardants
3296-90-0	2,2-bis(bromomethyl)propane-1,3-diol	Brominated flame retardants, Flame retardants
85-22-3	2,3,4,5,6-pentabromoethylbenzene	Aromatic compounds, Brominated flame retardants, Flame retardants
87-83-2	2,3,4,5,6-pentabromotoluene	Aromatic compounds, Brominated flame retardants, Flame retardants
23488-38-2	2,3,5,6-tetrabromo-p-xylene	Aromatic compounds, Brominated flame retardants, Flame retardants
96-13-9	2,3-dibromopropan-1-ol	Brominated flame retardants, Flame retardants, H311: Toxic in contact with skin, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility, H412: Harmful to aquatic life with long-lasting effects
7012-37-5	2,4,4'-trichlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
118-79-6	2,4,6-tribromophenol	Aromatic compounds, Brominated flame retardants, Flame retardants
615-58-7	2,4-dibromophenol	Aromatic compounds, Brominated flame retardants, Flame retardants



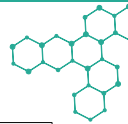
53469-21-9	2,4-dichloro-1-(2,4-dichlorophenyl) benzene Halogenated biphenyls, including Polychlorinated biphenyl (PCB)	Aromatic compounds, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
33284-50-3	2,4-dichloro-1-phenylbenzene	Aromatic compounds, Chlorinated aromatics, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated Biphenyls (PCBs)
15086-94-9	2-(3,6-dihydroxy-2,4,5,7-tetrabromoxanthene-9-yl)-benzoic acid	Brominated flame retardants, Flame retardants
3278-89-5	2-(allyloxy)-1,3,5-tribromobenzene	Aromatic compounds, Brominated flame retardants, Flame retardants
72828-63-8	2-[[4-[(5-bromo-2-cyano-3-nitrophenyl)azo]-3-methylphenyl]butylamino]ethyl acetate	Aromatic compounds, Brominated flame retardants, Flame retardants
35691-65-7	2-bromo-2-(bromomethyl)pentanedinitrile	Brominated flame retardants, Flame retardants
5589-96-8	2-bromo-2-chloroacetic acid Bromochloroacetic acid	Brominated flame retardants, Flame retardants
53591-98-3	2-bromo-4-fluoro-1,1'-biphenyl	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
75-26-3	2-bromopropane	Brominated flame retardants, Flame retardants
183658-27-7	2-ethylhexyl 2,3,4,5-tetrabromobenzoate 2-Ethyl-1-hexyl-2,3,4,5-tetrabromobenzoate (TBB)	Brominated flame retardants, Flame retardants
321-60-8	2-fluorobiphenyl	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
55281-26-0	3-[[4-[(2,6-dibromo-4-nitrophenyl)azo]phenyl]ethylamino]propiononitrile	Aromatic compounds, Brominated flame retardants, Flame retardants
83249-49-4	3-bromo-2-[[4-(diethylamino)-o-tolyl]azo]-5-methylbenzonitrile	Aromatic compounds, Brominated flame retardants, Flame retardants
3520-72-7	4,4'-[[3,3'-dichloro-1,1'-biphenyl]-4,4'-diyl]bis(azo)bis[2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one]	Aromatic compounds, Benzidine and its salts, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Isocyanates, Solvents
2050-68-2	4,4'-dichlorobiphenyl	Aromatic compounds, Chlorinated aromatics, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated Biphenyls (PCBs)
4162-45-2	4,4'-isopropylidenebis(2-(2,6-dibromophenoxy)ethanol)	Aromatic compounds, Brominated flame retardants, Flame retardants
70660-55-8	4-[(2-bromo-4,6-dinitrophenyl)azo]-N-(3-methoxypropyl)naphthalen-1-amine	Aromatic compounds, Brominated flame retardants, Flame retardants
41604-19-7	4-bromo-2-fluoro-1,1'-biphenyl	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
398-21-0	4-bromo-4'-fluoro-1,1'-biphenyl	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
101-55-3	4-bromophenyl phenyl ether	Aromatic compounds, Brominated flame retardants, Flame retardants
324-74-3	4-fluorobiphenyl	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
85702-64-3	5,7-dibromo-2-(5-bromo-7-chloro-1,3-dihydro-3-oxo-2H-indol-2-ylidene)-1,2-dihydro-3H-indol-3-one	Brominated flame retardants, Flame retardants
3687-67-0	5-bromo-2-(9-chloro-3-oxonaphtho[1,2-b]thien-2(3H)-ylidene)-1,2-dihydro-3H-indol-3-one	Brominated flame retardants, Flame retardants



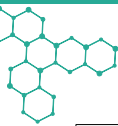
51936-55-1	7,8-dibromo-1,2,3,4,11,11-hexachloro-1,4,4a,5,6,7,8,9,10,10a-decahydro-1,4-methanobenzocyclooctene	Brominated flame retardants, Flame retardants
108171-26-2	Alkanes, C10-12, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
85535-84-8	Alkanes, C10-13, chloro (SCCP)	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
85535-85-9	Alkanes, C14-17, chloro (MCCP)	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers, H362: May cause harm to breast fed children, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
85535-86-0	Alkanes, C18-28, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
7440-36-0	antimony	Antimony compounds, Flame retardants
11104-28-2	Aroclor 1221	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
11141-16-5	Aroclor 1232	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
5412-25-9	bis(2,3-dibromopropyl) hydrogen phosphate	Brominated flame retardants, Flame retardants
2050-47-7	bis(4-bromophenyl) ether	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
1163-19-5	bis(pentabromophenyl) ether	Aromatic compounds, Diphenylether, octabromo derivative, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
353-59-3	bromochlorodifluoromethane	Chlorinated ethanes, Brominated flame retardants, Flame retardants, Ozone-depleting substances (CFC's), Solvents, Volatile Organic Compounds (VOC)
76-60-8	bromocresol green	Aromatic compounds, Brominated flame retardants, Flame retardants
115-40-2	bromocresol purple	Aromatic compounds, Brominated flame retardants, Flame retardants
74-96-4	bromoethane	Brominated flame retardants, Flame retardants, H351: Suspected of causing cancer
75-25-2	bromoform	Brominated flame retardants, Flame retardants, H331: Toxic if inhaled, H411: Toxic to aquatic life with long-lasting effects
75-63-8	bromotrifluoromethane	Brominated flame retardants, Flame retardants, Ozone-depleting substances (CFC's), Solvents, Volatile Organic Compounds (VOC)
52-51-7	bronopol	Brominated flame retardants, Flame retardants, H400: Very toxic to aquatic life
18991-98-5	butyl bromoacetate	Brominated flame retardants, Flame retardants, Solvents, Volatile Organic Compounds (VOC)
25586-43-0	chloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
13654-09-6	decabromo-1,1'-biphenyl	Aromatic compounds, Brominated flame retardants, Flame retardants
2051-24-3	decachloro-1,1'-biphenyl	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
124-48-1	dibromochloromethane	Brominated flame retardants, Flame retardants
25512-42-9	dichlorobiphenyl	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes



28699-88-9	dichloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
68928-80-3	diphenyl ether, heptabromo derivative	Aromatic compounds, Diphenylether, octabromo derivative, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
36483-60-0	diphenyl ether, hexabromo derivative	Aromatic compounds, Diphenylether, octabromo derivative, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
32536-52-0	diphenyl ether, octabromo derivative	Aromatic compounds, Diphenylether, octabromo derivative, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs), H360: May damage the unborn child or fertility
32534-81-9	diphenyl ether, pentabromo derivative	Aromatic compounds, Diphenylether, octabromo derivative, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs), H362: May cause harm to breast fed children, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
40088-47-9	diphenyl ether, tetrabromo derivative	Aromatic compounds, Diphenylether, octabromo derivative, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
49690-94-0	diphenyl ether, tribromo derivative	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
1176-74-5	ethyl 2-[(3,5-dibromo-4-hydroxyphenyl)(3,5-dibromo-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]benzoate	Aromatic compounds, Brominated flame retardants, Flame retardants
32241-08-0	heptachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
36355-01-8	hexabromo-1,1'-biphenyl	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
87-82-1	hexabromobenzene	Aromatic compounds, Brominated flame retardants, Flame retardants
25637-99-4	hexabromocyclododecane	Brominated flame retardants, Flame retardants, H361: Suspected of damaging the unborn child or fertility, H362: May cause harm to breast fed children
1335-87-1	hexachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
96-32-2	methyl bromoacetate	Brominated flame retardants, Flame retardants, Solvents, Volatile Organic Compounds (VOC)
59709-38-5	methyl N-[4-[(2-bromo-6-chloro-4-nitrophenyl)azo]phenyl]-N-(3-methoxy-3-oxopropyl)-?-alaninate	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Brominated flame retardants, Flame retardants, Solvents
32588-76-4	N,N'-ethylenebis(3,4,5,6-tetrabromophthalimide)	Brominated flame retardants, Flame retardants
42852-92-6	N-[2-[(2-bromo-4,6-dinitrophenyl)azo]-4-methoxy-5-[(phenylmethyl)allylamino]phenyl]acetamide	Aromatic compounds, Brominated flame retardants, Flame retardants
52697-38-8	N-[2-[(2-bromo-4,6-dinitrophenyl)azo]-5-(diethylamino)phenyl]acetamide	Aromatic compounds, Brominated flame retardants, Flame retardants
68877-63-4	N-[2-[(2-bromo-4,6-dinitrophenyl)azo]-5-[(2-cyanoethyl)allylamino]-4-methoxyphenyl]acetamide	Aromatic compounds, Brominated flame retardants, Flame retardants



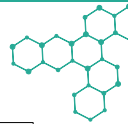
2537-62-4	N-[2-[(2-bromo-6-cyano-4-nitrophenyl)azo]-5-(diethylamino)phenyl]acetamide	Aromatic compounds, Brominated flame retardants, Flame retardants
83249-47-2	N-[2-[(2-bromo-6-cyano-4-nitrophenyl)azo]-5-(dipropylamino)phenyl]acetamide	Aromatic compounds, Brominated flame retardants, Flame retardants
83249-53-0	N-[2-[(2-bromo-6-cyano-p-tolyl)azo]-5-(diethylamino)phenyl]methanesulphonamide	Aromatic compounds, Brominated flame retardants, Flame retardants
83249-54-1	N-[2-[(2-bromo-6-cyano-p-tolyl)azo]-5-(dipropylamino)phenyl]methanesulphonamide	Aromatic compounds, Brominated flame retardants, Flame retardants
70776-03-3	Naphthalene, chloro derivs.	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
27753-52-2	nonabromo-1,1'-biphenyl	Aromatic compounds, Brominated flame retardants, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polybrominated biphenyls (PBBs)
2234-13-1	octachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
85422-92-0	Paraffin oils, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
63449-39-8	Paraffin waxes and Hydrocarbon waxes, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
11097-69-1	PCB 1254	Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes
63936-56-1	pentabromo(tetrabromophenoxy)benzene	Aromatic compounds, Brominated flame retardants, Flame retardants, Polybrominateddiphenyl ethers (PBDEs)
608-90-2	Pentabromobenzene	Aromatic compounds, Brominated flame retardants, Flame retardants
608-71-9	pentabromophenol	Aromatic compounds, Brominated flame retardants, Flame retardants
1321-64-8	pentachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
28824-41-1	Propanenitrile, 3-[[[4-[2-(4,6-dibromo-2-benzothiazolyl)diazetyl]phenyl]ethylamino]-	Aromatic compounds, Brominated flame retardants, Flame retardants
35223-80-4	propyl 2-bromoacetate Volatile esters of bromoacetic acids: (c) Propyl bromoacetate	Brominated flame retardants, Flame retardants, Solvents, Volatile Organic Compounds (VOC)
62625-32-5	sodium ?-(3,5-dibromo-2-methyl-4-oxo-2,5-cyclohexadienylidene)-?-(3,5-dibromo-4-hydroxyphenyl)toluenesulphonate	Aromatic compounds, Brominated flame retardants, Flame retardants
61788-33-8	Terphenyl, chlorinated	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated terphenyls (PCTs)
27858-07-7	tetrabromo(tetrabromophenyl)benzene	Aromatic compounds, Brominated flame retardants, Flame retardants
121839-52-9	Tetrabromobisphenol A (TBBP A)	Aromatic compounds, Brominated flame retardants, Flame retardants
115-39-9	tetrabromophenol blue	Aromatic compounds, Brominated flame retardants, Flame retardants



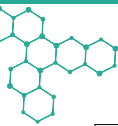
632-79-1	tetrabromophthalic anhydride	Brominated flame retardants, Flame retardants
1335-88-2	tetrachloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
545-55-1	tri(aziridin-1-yl)phosphine oxide	Flame retardants
78-30-8	tri-o-tolyl phosphate	Flame retardants, H370: Causes damage to organs, H411: Toxic to aquatic life with long-lasting effects
87-10-5	tribromsalan	Aromatic compounds, Brominated flame retardants, Flame retardants
1321-65-9	trichloronaphthalene	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Polychlorinated naphthalenes (PCNs), Solvents
512-56-1	trimethyl phosphate	Flame retardants
115-86-6	triphenyl phosphate	Aromatic compounds, Flame retardants
68112-30-1	tris(2,3-dibromopropyl) phosphate (alternative CAS# 126-72-7)	Brominated flame retardants, Flame retardants
126-72-7	tris(2,3-dibromopropyl) phosphate (Alternative CAS# 68112-30-1)	Brominated flame retardants, Flame retardants
13674-84-5	tris(2-chloro-1-methylethyl) phosphate	Flame retardants
115-96-8	tris(2-chloroethyl) phosphate	Flame retardants, H351: Suspected of causing cancer, H360: May damage the unborn child or fertility, H411: Toxic to aquatic life with long-lasting effects
13674-87-8	tris[2-chloro-1-(chloromethyl)ethyl] phosphate	Flame retardants, H351: Suspected of causing cancer
25155-23-1	trixyl phosphate	Flame retardants, H360: May damage the unborn child or fertility

Annex-8: Plasticizers and Phthalates Used in Textile Industry

CAS No.	Chemical Substance	Functional/Hazard Groups
4376-20-9	(2-ethylhexyl) hydrogen phthalate	Phthalates, Plasticizers
4782-29-0	[(phthaloylbis(oxy))bis(tributylstannane)]	Organic tin compounds, Phthalates, Plasticizers, Tri-substituted organotin compounds, Tributyltin compounds
69011-06-9	[phthalato(2-)]dioxotrilead	Lead compounds, Phthalates, Plasticizers
68515-51-5	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters	Phthalates, Plasticizers
71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	Aromatic compounds, Phthalates, Plasticizers, H360: May damage the unborn child or fertility
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	Aromatic compounds, Phthalates, Plasticizers, H360: May damage the unborn child or fertility
68515-48-0	1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	Aromatic compounds, Phthalates, Plasticizers
68515-49-1	1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Aromatic compounds, Phthalates, Plasticizers
68515-50-4	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	Aromatic compounds, Phthalates, Plasticizers
84777-06-0	1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	Aromatic compounds, Di-pentylphthalates (DPP), Phthalates, Plasticizers, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life
776297-69-9	1-(3-methylbutyl) 2-pentyl benzene-1,2-dicarboxylate n-Pentyl-iso-pentyl phthalate	Phthalates, Plasticizers



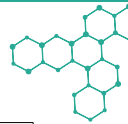
20566-35-2	2-(2-hydroxyethoxy)ethyl 2-hydroxypropyl 3,4,5,6-tetrabromophthalate	Phthalates, Plasticizers
2306-33-4	2-(ethoxycarbonyl)benzoic acid Mono-ethyl phthalate (MEP)	Phthalates, Plasticizers
66851-46-5	2-[(3-carboxypropoxy)carbonyl]benzoate Mono-(3-carboxypropyl) phthalate (MCPPE)	Phthalates, Plasticizers
7517-36-4	2-[(cyclohexyloxy)carbonyl]benzoic acid Mono-cyclohexyl phthalate (MCHP)	Phthalates, Plasticizers
40321-99-1	2-[[[2-ethyl-5-hydroxyhexyl]oxy]carbonyl]benzoic acid Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP)	Phthalates, Plasticizers
40321-98-0	2-[[[2-ethyl-5-oxohexyl]oxy]carbonyl]benzoic acid Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP)	Phthalates, Plasticizers
40809-41-4	2-[[[5-carboxy-2-ethylpentyl]oxy]carbonyl]benzoic acid Mono-(2-ethyl-5-carboxypentyl) phthalate (MECPP)	Phthalates, Plasticizers
108171-26-2	Alkanes, C10-12, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
85535-84-8	Alkanes, C10-13, chloro (SCCP)	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
85535-85-9	Alkanes, C14-17, chloro (MCCP)	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers, H362: May cause harm to breast fed children, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
85535-86-0	Alkanes, C18-28, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
16883-83-3	benzyl 3-isobutyryloxy-1-isopropyl-2,2-dimethylpropyl phthalate	Phthalates, Plasticizers
85-68-7	benzyl butyl phthalate	Phthalates, Plasticizers, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
2528-16-7	benzyl hydrogen phthalate	Phthalates, Plasticizers
117-82-8	bis(2-methoxyethyl) phthalate	Phthalates, Plasticizers, H360: May damage the unborn child or fertility
131-70-4	butyl hydrogen phthalate	Phthalates, Plasticizers
94275-93-1	cadmium (1-ethylhexyl) phthalate (1:2:2)	Cadmium compounds, Phthalates, Plasticizers
17976-43-1	cyclo-di-(?-oxo(?-phthalato)trilead	Lead compounds, Phthalates, Plasticizers
117-81-7	DEHP bis(2-ethylhexyl) phthalate	Phthalates, Plasticizers, H360: May damage the unborn child or fertility
26761-40-0	di-"isodecyl" phthalate	Phthalates, Plasticizers
28553-12-0	di-"isononyl" phthalate	Phthalates, Plasticizers
71549-78-5	Di-isononyl phthalate and metabolites	Phthalates, Plasticizers
131-17-9	diallyl phthalate	Phthalates, Plasticizers, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
84-74-2	dibutyl phthalate	Phthalates, Plasticizers, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life
84-61-7	dicyclohexyl phthalate	Phthalates, Plasticizers



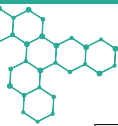
84-66-2	diethyl phthalate	Phthalates, Plasticizers
84-75-3	dihexyl phthalate	Phthalates, Plasticizers
84-69-5	diisobutyl phthalate	Phthalates, Plasticizers, H360: May damage the unborn child or fertility
71850-09-4	diisohexyl phthalate	Phthalates, Plasticizers
27554-26-3	diisooctyl phthalate	Phthalates, Plasticizers
605-50-5	diisopentyl phthalate	Di-pentylphthalates (DPP), Phthalates, Plasticizers, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life
131-11-3	dimethyl phthalate	Phthalates, Plasticizers
84-76-4	dinonyl phthalate	Phthalates, Plasticizers
117-84-0	dioctyl phthalate	Phthalates, Plasticizers
131-18-0	dipentyl phthalate	Di-pentylphthalates (DPP), Phthalates, Plasticizers, H360: May damage the unborn child or fertility, H400: Very toxic to aquatic life
131-16-8	dipropyl phthalate	Phthalates, Plasticizers
15968-01-1	disodium phthalate	Phthalates, Plasticizers
3648-20-2	diundecyl phthalate	Phthalates, Plasticizers
30833-53-5	isobutyl hydrogen phthalate	Phthalates, Plasticizers
16183-12-3	lead phthalate	Lead compounds, Phthalates, Plasticizers
4376-18-5	methyl hydrogen phthalate	Phthalates, Plasticizers
5393-19-1	octyl hydrogen phthalate	Phthalates, Plasticizers
85422-92-0	Paraffin oils, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
63449-39-8	Paraffin waxes and Hydrocarbon waxes, chloro	Chlorinated paraffins, Chloroalkanes, Flame retardants, Plasticizers
Phthalates group	Phthalates, all - group entry	Phthalates
10197-71-4	phthalic acid, sodium salt	Phthalates, Plasticizers

Annex-9: Dyes/Pigments Used in Textile Industry

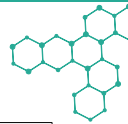
CAS No.	Chemical Substance	Functional/Hazard Groups
569-64-2	[4-([?-[4-(dimethylamino)phenyl]benzylidene)cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride	Dyes and pigments, H361: Suspected of damaging the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
1694-09-3	[4-([4-(dimethylamino)phenyl][4-[ethyl(3-sulphonatobenzyl)amino]phenyl]methylene)cyclohexa-2,5-dien-1-ylidene](ethyl)(3-sulphonatobenzyl)ammonium, sodium salt	Dyes and pigments, H351: Suspected of causing cancer
2580-56-5	[4-([4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene)cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride	Allergizing disperse dyes, Dyes and pigments
25329-82-2	1,3,6-Naphthalenetrisulfonic acid, 8-hydroxy-7-[2-[4'-[2-(2-hydroxy-1-naphthalenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-	Aryl-amines from Azo dyes, Dyes and pigments



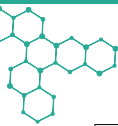
6771-80-8	1,3-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[[[4'-[[1-hydroxy-6-(phenylamino)-3-sulfo-2-naphthalenyl]azo]-3,3'-dimethoxy[1,1'-biphenyl]-4-yl]azo]-, trisodium salt	Aryl-amines from Azo dyes, Dyes and pigments
2475-45-8	1,4,5,8-tetraaminoanthraquinone	Allergizing disperse dyes, Dyes and pigments, H317: May cause allergic skin reaction, H350: May cause cancer
2872-48-2	1,4-diamino-2-methoxyanthraquinone	Allergizing disperse dyes, Dyes and pigments
3179-90-6	1,4-dihydroxy-5,8-bis[(2-hydroxyethyl)amino]anthraquinone	Allergizing disperse dyes, Dyes and pigments
3860-63-7	1,5-dihydroxy-4,8-bis(methylamino)anthraquinone	Allergizing disperse dyes, Dyes and pigments
2646-17-5	1-[(2-methylphenyl)azo]-2-naphthol	Dyes and pigments
82-28-0	1-amino-2-methylantraquinone	Allergizing disperse dyes, Dyes and pigments
56524-77-7	1-amino-4,5-dihydroxy-8-(methylamino)anthraquinone	Allergizing disperse dyes, Dyes and pigments
25188-28-7	1-Naphthalenesulfonic acid, 3,3'-[[3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl]bis(2,1-diazenediyl)]bis[4-amino-	Aryl-amines from Azo dyes, Dyes and pigments
25188-48-1	1-Naphthalenesulfonic acid, 4-amino-3-[[[4'-[[1-hydroxy-4-sulfo-2-naphthalenyl]azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-	Aryl-amines from Azo dyes, Dyes and pigments
25188-29-8	1-Naphthalenesulfonic acid, 4-amino-3-[[[4'-[[1-hydroxy-4-sulfo-2-naphthalenyl]azo][1,1'-biphenyl]-4-yl]azo]-	Aryl-amines from Azo dyes, Dyes and pigments
25188-30-1	1-Naphthalenesulfonic acid, 4-amino-3-[2-[4'-[2-(2-amino-8-hydroxy-6-sulfo-1-naphthalenyl)diazeryl][1,1'-biphenyl]-4-yl]diazeryl]-	Aryl-amines from Azo dyes, Dyes and pigments
25188-32-3	1-Naphthalenesulfonic acid, 4-amino-3-[2-[4'-[2-(2-hydroxy-8-sulfo-1-naphthalenyl)diazeryl][1,1'-biphenyl]-4-yl]diazeryl]-	Aryl-amines from Azo dyes, Dyes and pigments
6245-62-1	1-Naphthalenesulfonic acid, 4-hydroxy-3-[[[4-(phenylazo)phenyl]azo]-, mono-sodium salt	Aryl-amines from Azo dyes, Dyes and pigments
6300-53-4	1-Naphthalenesulfonic acid, 4-hydroxy-3-[2-[2-methyl-4-[2-(2-methylphenyl)diazeryl]phenyl]diazeryl]-, sodium salt (1:1)	Aryl-amines from Azo dyes, Dyes and pigments
54077-16-6	2(1H)-Quinolinone, 4-hydroxy-3-[2-[4-(2-phenyldiazeryl)phenyl]diazeryl]-	Allergizing disperse dyes, Aryl-amines from Azo dyes, Dyes and pigments



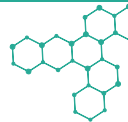
5468-75-7	2,2'-[[3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl]bis(azo)]bis[N-(2-methylphenyl)-3-oxobutyramide]	Aromatic compounds, Benzidine and its salts, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Isocyanates, Solvents
23355-64-8	2,2'-[[3-chloro-4-[[2,6-dichloro-4-nitrophenyl]azo]phenyl]imino]bisethanol	Allergizing disperse dyes, Dyes and pigments
3179-89-3	2,2'-[[3-methyl-4-[[4-nitrophenyl]azo]phenyl]imino]bisethanol	Allergizing disperse dyes, Dyes and pigments
137-17-7	2,4,5-trimethylaniline (alternative but wrong CAS# used 137-71-7)	Aromatic compounds, Aryl-amines from Azo dyes, Azo-amines, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
21436-97-5	2,4,5-trimethylanilinium chloride 2,4,5-trimethylaniline hydrochloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
95-68-1	2,4-xylidine	Aryl-amines from Azo dyes, Dyes and pigments
87-62-7	2,6-xylidine	Aryl-amines from Azo dyes, Dyes and pigments, H351: Suspected of causing cancer, H411: Toxic to aquatic life with long-lasting effects
25180-27-2	2,7-Naphthalenedisulfonic acid, 3,3'-[[3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl]bis(azo)]bis[4,5-dihydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
5858-30-0	2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[[2-methylphenyl]azo]-, disodium salt	Aryl-amines from Azo dyes, Dyes and pigments
6428-98-4	2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[[4'-[(1-hydroxy-4-sulfo-2-naphthalenyl)azo]-3,3'-dimethoxy[1,1'-biphenyl]-4-yl]azo]-, trisodium salt	Aryl-amines from Azo dyes, Dyes and pigments
25156-49-4	2,7-Naphthalenedisulfonic acid, 4-amino-3-[2-[4'-[2-(2,4-diamino-5-methylphenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-5-hydroxy-6-(2-phenyldiazenyl)-	Aryl-amines from Azo dyes, Dyes and pigments
72390-60-4	2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[2-[4'-[2-(4-hydroxyphenyl)diazenyl]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]diazenyl]-6-(2-phenyldiazenyl)-, sodium salt (1:2)	Aryl-amines from Azo dyes, Dyes and pigments
1324-87-4	2,7-Naphthalenedisulfonic acid, 5-[[[di-amino[(8-hydroxy-6-sulfo-2-naphthalenyl)azo]phenyl]azo]-4-hydroxy-3-[[4'-[(4-hydroxyphenyl)azo][1,1'-biphenyl]-4-yl]azo]-, trisodium salt	Aryl-amines from Azo dyes, Dyes and pigments
2872-52-8	2-[ethyl[4-[[4-nitrophenyl]azo]phenyl]amino]ethanol	Allergizing disperse dyes, Dyes and pigments



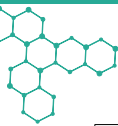
61968-47-6	2-[N-methyl(5E)-6-oxo-5-{2-[4-(2-phenyldiazen-1-yl)phenyl]hydrazin-1-ylidene}-5,6-dihydronaphthalene-2-sulfonamido]ethyl acetate Disperse Red 151	Allergizing disperse dyes, Aryl-amines from Azo dyes, Dyes and pigments
25180-14-7	2-Naphthalenesulfonic acid, 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)] bis[6-amino-4-hydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
2429-75-6	2-Naphthalenesulfonic acid, 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)] bis[7-amino-4-hydroxy-, disodium salt	Aryl-amines from Azo dyes, Dyes and pigments
6358-79-8	2-Naphthalenesulfonic acid, 4-hydroxy-7-[[[5-hydroxy-6-[(2-methylphenyl)azo]-7-sulfo-2-naphthalenyl]amino]carbonyl]amino]-3-[[4-sulfophenyl)azo]-, trisodium salt	Aryl-amines from Azo dyes, Dyes and pigments
6406-01-5	2-Naphthalenesulfonic acid, 5,5'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-amino-, disodium salt	Aryl-amines from Azo dyes, Dyes and pigments
25188-44-7	2-Naphthalenesulfonic acid, 5,5'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[6-amino-4-hydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
6448-80-2	2-Naphthalenesulfonic acid, 6-amino-5-[[4'-[(2-amino-7-sulfo-1-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-, disodium salt	Aryl-amines from Azo dyes, Dyes and pigments
91-59-8	2-naphthylamine	Aryl-amines from Azo dyes, Dyes and pigments, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
91-94-1	3,3'-dichlorobenzidine	Aromatic compounds, Aryl-amines from Azo dyes, Benzidine and its salts, Chlorinated aromatics, Chlorobenzenes, Chlororganic carriers, Dichlorobenzenes, Dyes and pigments, Solvents, H317: May cause allergic skin reaction, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
119-90-4	3,3'-dimethoxybenzidine	Aryl-amines from Azo dyes, Benzidine and its salts, Dyes and pigments, H350: May cause cancer
95-76-1	3,4-dichloroaniline	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
13301-61-6	3-[[4-[(2,6-dichloro-4-nitrophenyl)azo]phenyl]ethylamino]propionitrile	Allergizing disperse dyes, Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments
12236-29-2	3H-Indol-3-one, 2-[[4-(dimethylamino)phenyl]methylene]-1,2-dihydro-	Allergizing disperse dyes, Dyes and pigments
569-61-9	4,4'-(4-iminocyclohexa-2,5-dienylidene-methylene)dianiline hydrochloride	Allergizing disperse dyes, Dyes and pigments, H350: May cause cancer



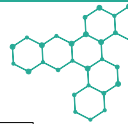
3520-72-7	4,4'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one]	Aromatic compounds, Benzidine and its salts, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Flame retardants, Halogenated biphenyls, halogenated terphenyls, and halogenated naphthalenes, Isocyanates, Solvents
119-93-7	4,4'-bi-o-toluidine	Aromatic compounds, Aryl-amines from Azo dyes, Benzidine and its salts, Dyes and pigments, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
561-41-1	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	Dyes and pigments
492-80-8	4,4'-carbonimidoylbis[N,N-dimethylaniline]	Dyes and pigments, H351: Suspected of causing cancer, H411: Toxic to aquatic life with long-lasting effects
101-14-4	4,4'-methylenebis[2-chloroaniline]	Aromatic compounds, Aryl-amines from Azo dyes, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
838-88-0	4,4'-methylenedi-o-toluidine	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H317: May cause allergic skin reaction, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
101-77-9	4,4'-methylenedianiline	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H317: May cause allergic skin reaction, H341: Suspected of causing genetic defects, H350: May cause cancer, H370: Causes damage to organs, H373: May cause damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
13552-44-8	4,4'-methylenedianilinium dichloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents
101-80-4	4,4'-oxydianiline	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H340: May cause genetic defects, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility, H411: Toxic to aquatic life with long-lasting effects
139-65-1	4,4'-thiodianiline	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
119-15-3	4-(2,4-dinitroanilino)phenol	Allergizing disperse dyes, Dyes and pigments
2581-69-3	4-[(4-nitrophenyl)azo]-N-phenylaniline	Allergizing disperse dyes, Dyes and pigments
730-40-5	4-[(4-nitrophenyl)azo]aniline	Allergizing disperse dyes, Dyes and pigments
6300-37-4	4-[[p-(phenylazo)phenyl]azo]-o-cresol	Allergizing disperse dyes, Aryl-amines from Azo dyes, Dyes and pigments
60-09-3	4-aminoazobenzene	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects



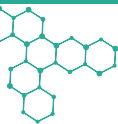
95-69-2	4-chloro-o-toluidine	Aryl-amines from Azo dyes, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
3165-93-3	4-chloro-o-toluidinium chloride	Aryl-amines from Azo dyes, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
106-47-8	4-chloroaniline	Aromatic compounds, Aryl-amines from Azo dyes, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
20265-96-7	4-chloroanilinium chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents
60-11-7	4-dimethylaminoazobenzene	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments
615-05-4	4-methoxy-m-phenylenediamine	Aryl-amines from Azo dyes, Dyes and pigments, Phenylenediamines, H341: Suspected of causing genetic defects, H350: May cause cancer, H411: Toxic to aquatic life with long-lasting effects
95-80-7	4-methyl-m-phenylenediamine	Aromatic compounds, Aryl-amines from Azo dyes, Diaminotoluenes, Dyes and pigments, Phenylenediamines, H301: Toxic if swallowed, H317: May cause allergic skin reaction, H341: Suspected of causing genetic defects, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility, H373: May cause damage to organs through prolonged or repeated exposure, H411: Toxic to aquatic life with long-lasting effects
100-01-6	4-nitroaniline	Aromatic compounds, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H373: May cause damage to organs through prolonged or repeated exposure, H412: Harmful to aquatic life with long-lasting effects
97-56-3	4-o-tolylazo-o-toluidine	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H317: May cause allergic skin reaction, H350: May cause cancer
63405-99-2	5,7-dichloro-4-(2,4,5-trichlorophenoxy)-2-(trifluoromethyl)-1H-benzimidazole	Dyes and pigments
99-55-8	5-nitro-o-toluidine	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H351: Suspected of causing cancer, H412: Harmful to aquatic life with long-lasting effects
120-71-8	6-methoxy-m-toluidine	Aryl-amines from Azo dyes, Dyes and pigments, H350: May cause cancer
2475-46-9	9,10-anthracenedione, 1,4-diamino-, N,N'-mixed 2-hydroxyethyl and methyl derivatives	Allergizing disperse dyes, Dyes and pigments



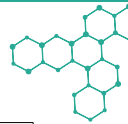
81-88-9	9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride	Dyes and pigments
989-38-8	9-[2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethylxanthylium chloride	Dyes and pigments
	A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato) (1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-)	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Chromium compounds, Dyes and pigments, H317: May cause allergic skin reaction, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
61901-41-5	Acid Red 167	Aryl-amines from Azo dyes, Dyes and pigments
62-53-3	aniline	Aromatic compounds, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H341: Suspected of causing genetic defects, H351: Suspected of causing cancer, H372: Causes damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life
142-04-1	anilinium chloride	Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments, Solvents
103-33-3	azobenzene	Aromatic compounds, Dyes and pigments, H341: Suspected of causing genetic defects, H350: May cause cancer, H373: May cause damage to organs through prolonged or repeated exposure, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
113741-92-7	Basic Red 111	Aryl-amines from Azo dyes, Dyes and pigments
632-99-5	Basic Violet 14 (4-(4-aminophenyl) (4-iminocyclohexa-2,5-dienylidene) methyl)-2-methylaniline hydrochloride	Allergizing disperse dyes, Dyes and pigments
548-62-9	Basic Violet 3 Gentian Violet [4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride	Allergizing disperse dyes, Dyes and pigments, H350: May cause cancer, H351: Suspected of causing cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
92-87-5	benzidine	Aryl-amines from Azo dyes, Benzidine and its salts, Dyes and pigments, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
6486-29-9	Benzoic acid, 2-hydroxy-5-[2-[4'-[3-(4-sulfophenyl)-1-triazenyl][1,1'-biphenyl]-4-yl]diazeryl]-, sodium salt (1:2)	Aryl-amines from Azo dyes, Dyes and pigments
6459-97-8	Benzoic acid, 3,3'-[([3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxy-5-methyl-, disodium salt	Aryl-amines from Azo dyes, Dyes and pigments
6472-91-9	Benzoic acid, 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(2,1-diazenediyl)]bis[6-hydroxy-, sodium salt (1:2)	Dyes and pigments



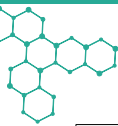
2868-76-0	Benzoic acid, 5-[[4'-[(2,6-diamino-3-methyl-5-sulfohenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxy-3-methyl-, disodium salt	Aryl-amines from Azo dyes, Dyes and pigments
4623-91-0	Benzoic acid, 5-[[4'-[(2,4-diaminophenyl)azo]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxy-, trisodium salt	Aryl-amines from Azo dyes, Dyes and pigments
3626-29-7	Benzoic acid, 5-[[4'-[(3-carboxy-4-hydroxyphenyl)azo][1,1'-biphenyl]-4-yl]azo]-7-sulfo-1-naphthalenyl]azo]-2-hydroxy-, trisodium salt	Aryl-amines from Azo dyes, Dyes and pigments
25188-24-3	Benzoic acid, 5-[2-[4'-[2-(2-amino-8-hydroxy-6-sulfo-1-naphthalenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-2-hydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
25255-06-5	Benzoic acid, 5-[2-[4'-[2-(7-amino-1-hydroxy-3-sulfo-2-naphthalenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-2-hydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
25180-41-0	Benzoic acid, 5-[2-[4'-[2-[2,6-diamino-3-[2-[8-hydroxy-3,6-disulfo-7-[2-(4-sulfo-1-naphthalenyl)diazenyl]-2-naphthalenyl]diazenyl]-5-methylphenyl]diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-2-hydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
64743-15-3	Benzoic acid, 5-[2-[4'-[2-[2,6-diamino-3-methyl-5-[2-(4-sulfohenyl)diazenyl]phenyl]diazenyl]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]diazenyl]-2-hydroxy-, sodium salt (1:2)	Aryl-amines from Azo dyes, Dyes and pigments
25180-47-6	Benzoic acid, 5-[2-[4'-[2-[8-amino-1-hydroxy-7-[2-(4-nitrophenyl)diazenyl]-3,6-disulfo-2-naphthalenyl]diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-2-hydroxy-	Aryl-amines from Azo dyes, Dyes and pigments
92-67-1	biphenyl-4-ylamine	Aromatic compounds, Aryl-amines from Azo dyes, Dyes and pigments, H350: May cause cancer
10309-95-2	bis[4-(dimethylamino)phenyl](phenyl)methylum chloride Malachit green	Dyes and pigments
14426-25-6	bis[p-(dimethylamino)phenyl][p-(dimethylammonio)phenyl]methylum	Aromatic compounds, Dyes and pigments
12219-01-1	C.I. Acid Black 131	Aryl-amines from Azo dyes, Dyes and pigments
12219-02-2	C.I. Acid Black 132	Dyes and pigments
72827-68-0	C.I. Acid Black 209	Aryl-amines from Azo dyes, Dyes and pigments
12217-14-0	C.I. Acid Black 29	Aryl-amines from Azo dyes, Dyes and pigments
97199-27-4	C.I. Acid Brown 415	Aryl-amines from Azo dyes, Dyes and pigments
8004-55-5	C.I. Acid Red 158	Aryl-amines from Azo dyes, Dyes and pigments
2437-29-8	C.I. Basic Green 4 bis[[4-[4-(dimethyl-amino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium]oxalate, dioxalate	Dyes and pigments, H361: Suspected of damaging the unborn child or fertility, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
12221-66-8	C.I. Basic Red 42	Aryl-amines from Azo dyes, Dyes and pigments
8004-87-3	C.I. Basic Violet 1	Dyes and pigments
110735-25-6	C.I. Direct Blue 151	Aryl-amines from Azo dyes, Dyes and pigments
12222-02-5	C.I. Direct Blue 160	Aryl-amines from Azo dyes, Dyes and pigments
12235-72-2	C.I. Direct Blue 173	Aryl-amines from Azo dyes, Dyes and pigments
76012-70-9	C.I. Direct Green 8:1	Aryl-amines from Azo dyes, Dyes and pigments



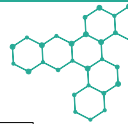
64083-59-6	C.I. Direct Orange 8	Aryl-amines from Azo dyes, Dyes and pigments
8005-64-9	C.I. Direct Red 72	Aryl-amines from Azo dyes, Dyes and pigments
69766-79-6	C.I. Disperse Blue 102 1,2-Propanediol, 3-[ethyl[3-methyl-4-[2-(5-nitro-2-thiazolyl)diazenyl]phenyl]amino]- (alternative CAS# 12222-97-8)	Allergizing disperse dyes, Dyes and pigments
12222-97-8	C.I. Disperse Blue 102 1,2-Propanediol, 3-[ethyl[3-methyl-4-[2-(5-nitro-2-thiazolyl)diazenyl]phenyl]amino]- (alternative CAS# 69766-79-6)	Allergizing disperse dyes, Dyes and pigments
12223-01-7	C.I. Disperse Blue 106 Ethanol, 2-[ethyl[3-methyl-4-[2-(5-nitro-2-thiazolyl)diazenyl]phenyl]amino]-	Allergizing disperse dyes, Dyes and pigments
61951-51-7	C.I. Disperse Blue 124 Ethanol, 2-[ethyl[3-methyl-4-[2-(5-nitro-2-thiazolyl)diazenyl]phenyl]amino]-, 1-acetate	Allergizing disperse dyes, Dyes and pigments
100357-99-1	C.I. Disperse Blue 26:1	Allergizing disperse dyes, Dyes and pigments
12222-75-2	C.I. Disperse Blue 35	Allergizing disperse dyes, Dyes and pigments
54824-37-2	C.I. Disperse Yellow 49	Allergizing disperse dyes, Dyes and pigments
842-07-9	C.I. solvent yellow 14 1-phenylazo-2-naphthol	Allergizing disperse dyes, Dyes and pigments, H317: May cause allergic skin reaction, H341: Suspected of causing genetic defects, H351: Suspected of causing cancer, H413: May cause long-lasting effects to aquatic life
128-66-5	dibenzo[b,def]chrysene-7,14-dione	Dyes and pigments
159202-76-3	Direct Blue 192	Aryl-amines from Azo dyes, Dyes and pigments
6247-51-4	Direct Brown 59	Aryl-amines from Azo dyes, Dyes and pigments
25180-39-6	Direct Brown 6	Aryl-amines from Azo dyes, Dyes and pigments
54579-28-1	Direct Orange 1	Aryl-amines from Azo dyes, Dyes and pigments
16071-86-6	disodium [5-[[4'-[[2,6-dihydroxy-3-[(2-hydroxy-5-sulphophenyl)azo]phenyl]azo][1,1'-biphenyl]-4-yl]azo]salicylate(4-)]cuprate(2-)	Aryl-amines from Azo dyes, Dyes and pigments, H350: May cause cancer
3761-53-3	disodium 1-(2,4-dimethylphenylazo)-2-hydroxynaphthalene-3,6-disulphonate	Allergizing disperse dyes, Dyes and pigments
992-59-6	disodium 3,3'-((3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo))bis(4-amino-naphthalene-1-sulphonate)	Aryl-amines from Azo dyes, Dyes and pigments
2429-71-2	disodium 3,3'-((3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo))bis(4-hydroxynaphthalene-1-sulphonate)	Aryl-amines from Azo dyes, Dyes and pigments
6405-94-3	disodium 3,3'-((3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo))bis(2,4-diamino-5-methylbenzenesulphonate)	Aryl-amines from Azo dyes, Dyes and pigments
573-58-0	disodium 3,3'-[[1,1'-biphenyl]-4,4'-diyl-bis(azo)]bis(4-aminonaphthalene-1-sulphonate)	Allergizing disperse dyes, Dyes and pigments, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility
2429-72-3	disodium 3-[[4'-[(6-amino-1-hydroxy-3-sulphonato-2-naphthyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-4-hydroxynaphthalene-1-sulphonate	Aryl-amines from Azo dyes, Dyes and pigments



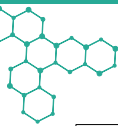
2429-80-3	disodium 3-amino-4-[[4'-[[4-[[[p-tolylsulphonyl]oxy]phenyl]azo][1,1'-biphenyl]-4-yl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6226-78-4	disodium 3-hydroxy-4-(4-phenylazo)phenylazo)naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6226-80-8	disodium 3-hydroxy-4-[[2-methyl-4-[[o-tolyl]azo]phenyl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
54804-85-2	disodium 4-amino-3-[[4'-[[2,4-diaminophenyl]azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
1937-37-7	disodium 4-amino-3-[[4'-[[2,4-diaminophenyl]azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate	Allergizing disperse dyes, Dyes and pigments, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility
6598-56-7	disodium 4-amino-3-[[4'-[[2-amino-6-sulphonatonaphthyl]azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]naphthalene-1-sulphonate	Aryl-amines from Azo dyes, Dyes and pigments
3626-28-6	disodium 4-amino-5-hydroxy-3-[[4'-[[4-hydroxyphenyl]azo][1,1'-biphenyl]-4-yl]azo]-6-(phenylazo)naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
2586-57-4	disodium 4-amino-5-hydroxy-6-[[4'-[[2-hydroxy-1-naphthyl]azo]-3,3'-dimethoxy[1,1'-biphenyl]-4-yl]azo]naphthalene-1,3-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
4335-09-5	disodium 4-amino-5-hydroxy-6-[[4'-[[4-hydroxyphenyl]azo][1,1'-biphenyl]-4-yl]azo]-3-[[4-nitrophenyl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6505-96-0	disodium 4-hydroxy-3-[[2-methoxyphenyl]azo]-5-[[[p-tolyl]sulphonyl]amino]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
5858-63-9	disodium 4-hydroxy-3-[[2-methoxyphenyl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6358-43-6	disodium 4-hydroxy-3-[[o-tolyl]azo]-5-[[[p-tolyl]sulphonyl]amino]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6625-46-3	disodium 5-(acetylamino)-4-hydroxy-3-[[2-methoxyphenyl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6637-88-3	disodium 5-[[4'-[[2,6-diamino-3-methyl-5-sulphonatophenyl]azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]salicylate	Aryl-amines from Azo dyes, Dyes and pigments
3811-71-0	disodium 5-[[4'-[[2,4-diamino-5-[[4-sulphophenyl]azo]phenyl]azo][1,1'-biphenyl]-4-yl]azo]salicylate	Aryl-amines from Azo dyes, Dyes and pigments
6360-54-9	disodium 5-[[4'-[[2,6-diamino-3-methyl-5-[[4-sulphonatophenyl]azo]phenyl]azo][1,1'-biphenyl]-4-yl]azo]-3-methylsalicylate	Aryl-amines from Azo dyes, Dyes and pigments



2586-58-5	disodium 5-[[[4'-[[[2,6-diamino-3-methyl-5-[[4-sulphonatophenyl]azo]phenyl]azo][1,1'-biphenyl]-4-yl]azo]salicylate	Aryl-amines from Azo dyes, Dyes and pigments
33363-87-0	disodium 5-[[[4'-[[[4-[[[2,4-diaminophenyl]azo]phenyl]azo]sulphonato-1-naphthyl]azo][1,1'-biphenyl]-4-yl]azo]salicylate	Aryl-amines from Azo dyes, Dyes and pigments
3567-65-5	disodium 7-hydroxy-8-[[[4'-[[[4-[[[p-tolyl]sulphonyloxy]phenyl]azo][1,1'-biphenyl]-4-yl]azo]naphthalene-1,3-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
2302-97-8	disodium 8,8'-[[[1,1'-biphenyl]-4,4'-di-ylbis(azo)]bis(7-hydroxynaphthalene-1-sulphonate)	Aryl-amines from Azo dyes, Dyes and pigments
6459-94-5	disodium 8-[[[3,3'-dimethyl-4'-4-(4-methylphenylsulphonyloxy)phenylazo)(1,1'-biphenyl)-4-yl]azo]-7-hydroxynaphthalene-1,3-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6548-30-7	disodium 8-[[[3,3'-dimethoxy-4'-[[4-[[[p-tolyl]sulphonyloxy]phenyl]azo][1,1'-biphenyl]-4-yl]azo]-7-hydroxynaphthalene-1,3-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6358-29-8	disodium 8-[[[3,3'-dimethyl(1,1'-biphenyl)-4-yl]azo]-7-hydroxynaphthalene-1,3-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
3530-19-6	disodium 8-[[[4'-[[4-ethoxyphenyl]azo][1,1'-biphenyl]-4-yl]azo]-7-hydroxynaphthalene-1,3-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
85136-74-9	Disperse orange 149 6-hydroxy-1-(3-isopropoxypropyl)-4-methyl-2-oxo-5-[4-(phenylazo)phenylazo]-1,2-dihydro-3-pyridinecarbonitrile	Allergizing disperse dyes, Dyes and pigments, H350: May cause cancer, H413: May cause long-lasting effects to aquatic life
51811-42-8	Disperse Orange 76 (previously designated Orange 37)	Allergizing disperse dyes, Dyes and pigments
6250-22-3	Disperse Yellow 23	Allergizing disperse dyes, Dyes and pigments
25214-70-4	Formaldehyde, oligomeric reaction products with aniline	Aromatic compounds, Dyes and pigments
4680-78-8	hydrogen (ethyl)[4-[[[4-[[[ethyl(3-sulphonatobenzyl)amino]phenyl]benzylidene]cyclohexa-2,5-dien-1-ylidene](3-sulphonatobenzyl)ammonium, sodium salt	Dyes and pigments
603-48-5	N,N,N',N'',N'''-hexamethyl-4,4,4'-methylidynetrianiline	Aromatic compounds, Dyes and pigments
101-61-1	N,N,N',N'-tetramethyl-4,4'-methylene-dianiline	Aromatic compounds, Dyes and pigments, H350: May cause cancer, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
121-69-7	N,N-dimethylaniline	Aromatic compounds, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin, H331: Toxic if inhaled, H351: Suspected of causing cancer, H411: Toxic to aquatic life with long-lasting effects
6373-73-5	N-(2,4-dinitrophenyl)benzene-1,4-diamine	Allergizing disperse dyes, Dyes and pigments
2832-40-8	N-[4-[[[2-hydroxy-5-methylphenyl]azo]phenyl]acetamide	Allergizing disperse dyes, Dyes and pigments, H317: May cause allergic skin reaction, H351: Suspected of causing cancer



118685-33-9	Navy Blue component 1: C39H23Cl-CrN7O12S.2Na	Dyes and pigments
	Navy Blue Component 2: C46H-30CrN10O20S2.3Na	Dyes and pigments
8005-78-5	nitrous acid, reaction products with 4-methyl-1,3-benzenediamine hydrochloride	Aryl-amines from Azo dyes, Dyes and pigments
90-04-0	o-anisidine	Aryl-amines from Azo dyes, Dyes and pigments, H301: Toxic if swallowed, H311: Toxic in contact with skin
95-53-4	o-toluidine	Aryl-amines from Azo dyes, Dyes and pigments, H301: Toxic if swallowed, H331: Toxic if inhaled, H350: May cause cancer, H400: Very toxic to aquatic life
6250-23-3	p-[[p-(phenylazo)phenyl]azo]phenol	Allergizing disperse dyes, Dyes and pigments
106-50-3	p-phenylenediamine	Aromatic compounds, Dyes and pigments, Phenylene-diamines, H301: Toxic if swallowed, H311: Toxic in contact with skin, H317: May cause allergic skin reaction, H331: Toxic if inhaled, H400: Very toxic to aquatic life, H410: Very toxic to aquatic life with long-lasting effects
12223-33-5	Propanenitrile, 3-[[[4-[2-(2,6-dichloro-4-nitrophenyl)diazanyl]phenyl]ethylamino]-	Allergizing disperse dyes, Aromatic compounds, Chlorinated aromatics, Chlororganic carriers, Dyes and pigments
5858-39-9	sodium 2-(4-(3-methyl-4-(phenylsulphonyloxy)phenylazo)phenylimino)-5-nitrobenzenesulphonate	Aryl-amines from Azo dyes, Dyes and pigments
1320-07-6	sodium 4-[[[3-[[dimethylphenyl]azo]-2,4-dihydroxyphenyl]azo]benzenesulphonate	Dyes and pigments
5413-75-2	sodium 6-hydroxy-5-(4-phenylazophenylazo)naphthalene-2,4-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
28407-37-6	tetrasodium [?-[[(3,3'-(3,3'-dihydroxy[1,1'-biphenyl]-4,4'-diyl)bis(azo))bis[5-amino-4-hydroxynaphthalene-2,7-disulphonato]](8-)]dicuprate(4-)	Dyes and pigments
16143-79-6	tetrasodium [?-[[(6,6'-(3,3'-dihydroxy[1,1'-biphenyl]-4,4'-diyl)bis(azo))bis[4-amino-5-hydroxynaphthalene-1,3-disulphonato]](8-)]dicuprate(4-)	Dyes and pigments
4198-19-0	tetrasodium 3,3'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[4,5-dihydroxynaphthalene-2,7-disulphonate]	Aryl-amines from Azo dyes, Dyes and pigments
2429-74-5	tetrasodium 3,3'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate]	Aryl-amines from Azo dyes, Dyes and pigments
72-57-1	tetrasodium 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate]	Aryl-amines from Azo dyes, Dyes and pigments
2602-46-2	tetrasodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate]	Allergizing disperse dyes, Dyes and pigments, H350: May cause cancer, H361: Suspected of damaging the unborn child or fertility



6548-29-4	tetrasodium 4,4'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-amino-naphthalene-2,7-disulphonate]	Aryl-amines from Azo dyes, Dyes and pigments
314-13-6	tetrasodium 6,6'-[(3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)bis(azo)]bis[4-amino-5-hydroxy-1,3-naphthalenedisulphonate]	Aryl-amines from Azo dyes, Dyes and pigments
2610-05-1	tetrasodium 6,6'-[(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[4-amino-5-hydroxynaphthalene-1,3-disulphonate]	Aryl-amines from Azo dyes, Dyes and pigments
6483-77-8	trisodium (3E)-3-(2-{4-[4-(2-{2,4-diamino-5-[2-(2,4-disulfonatophenyl)diazene-1-yl]phenyl}diazene-1-yl)phenyl]phenyl}hydrazine-1-ylidene)-6-oxocyclohexa-1,4-diene-1-carboxylate Direct Brown 79	Aryl-amines from Azo dyes, Dyes and pigments
6739-62-4	trisodium 2-[[2-amino-6-[[4'-[(3-carboxylato-4-hydroxyphenyl)azo]-3,3'-dimethoxy[1,1'-biphenyl]-4-yl]azo]-5-hydroxy-7-sulphonato-1-naphthyl]azo]-5-nitrobenzoate	Dyes and pigments
3687-80-7	trisodium 4-[[6-[[[6-[(o-anisyl)azo]-5-hydroxy-7-sulphonato-2-naphthyl]amino]carbonyl]amino]-1-hydroxy-3-sulphonato-2-naphthyl]azo]naphthalene-1-sulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6358-80-1	trisodium 4-amino-5-hydroxy-3-[[4'-[[4-hydroxy-2-[(o-tolyl)amino]phenyl]azo][1,1'-biphenyl]-4-yl]azo]-6-[[4-sulphonatophenyl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6473-33-2	trisodium 4-hydroxy-3-[[4'-[(1-hydroxy-4-sulphonato-2-naphthyl)azo]-3,3'-dimethoxy[1,1'-biphenyl]-4-yl]azo]naphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6420-44-6	trisodium 4-hydroxy-7-[[[5-hydroxy-6-[(2-methoxyphenyl)azo]-7-sulphonato-2-naphthyl]amino]carbonyl]amino]-3-[[2-methyl-4-sulphonatophenyl]azo]naphthalene-2-sulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6420-43-5	trisodium 4-hydroxy-7-[[[5-hydroxy-7-sulphonato-6-[(o-tolyl)azo]-2-naphthyl]amino]carbonyl]amino]-3-[[2-methyl-4-sulphonatophenyl]azo]naphthalene-2-sulphonate	Aryl-amines from Azo dyes, Dyes and pigments
6360-29-8	trisodium 5-[[4'-[[4-[(4-amino-7-sulphonato-1-naphthyl)azo]-6-sulphonato-1-naphthyl]azo][1,1'-biphenyl]-4-yl]azo]salicylate	Aryl-amines from Azo dyes, Dyes and pigments
6420-22-0	trisodium 5-amino-3-[[4'-[[6-amino-1-hydroxy-3-sulphonato-2-naphthyl]azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-4-hydroxynaphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments
2429-73-4	trisodium 5-amino-3-[[4'-[[7-amino-1-hydroxy-3-sulphonato-2-naphthyl]azo][1,1'-biphenyl]-4-yl]azo]-4-hydroxynaphthalene-2,7-disulphonate	Aryl-amines from Azo dyes, Dyes and pigments



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